Scoping Report

McDonald Gold Project Environmental Impact Statement

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MCDONALD GOLD PROJECT -- SCOPING REPORT

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1.0
INTRODUCTION

This report is a compilation of issues identified in the initial scoping phase of the McDonald Gold Project Environmental Impact Statement. Section 1.0 summarizes the project and provides an overview of the MEPA/NEPA process. Section 2.0 discusses how public comments have been incorporated into this report, and briefly addresses the next steps in the process. Section 3.0 provides a summary description of the issues, and Section 4.0 presents individual questions or comments.

Project Summary

The Seven-Up Pete Joint Venture (SPJV), a partnership between Phelps Dodge Mining Company (PDMC) and CR Montana Corporation, has submitted an application to the Montana Department of Environmental Quality (DEQ) and the Montana Department of Natural Resources and Conservation (DNRC) for development of the McDonald Gold Project.

The proposed project would be located in Lewis and Clark County, Montana, approximately forty miles northwest of Helena and eight miles east of Lincoln. The 5,400 acre permit area would be located near the confluence of the Landers Fork and Blackfoot Rivers (figures 1-1 and 1-2). Gold and silver would be extracted by conventional open-pit mining and cyanide heap leaching.

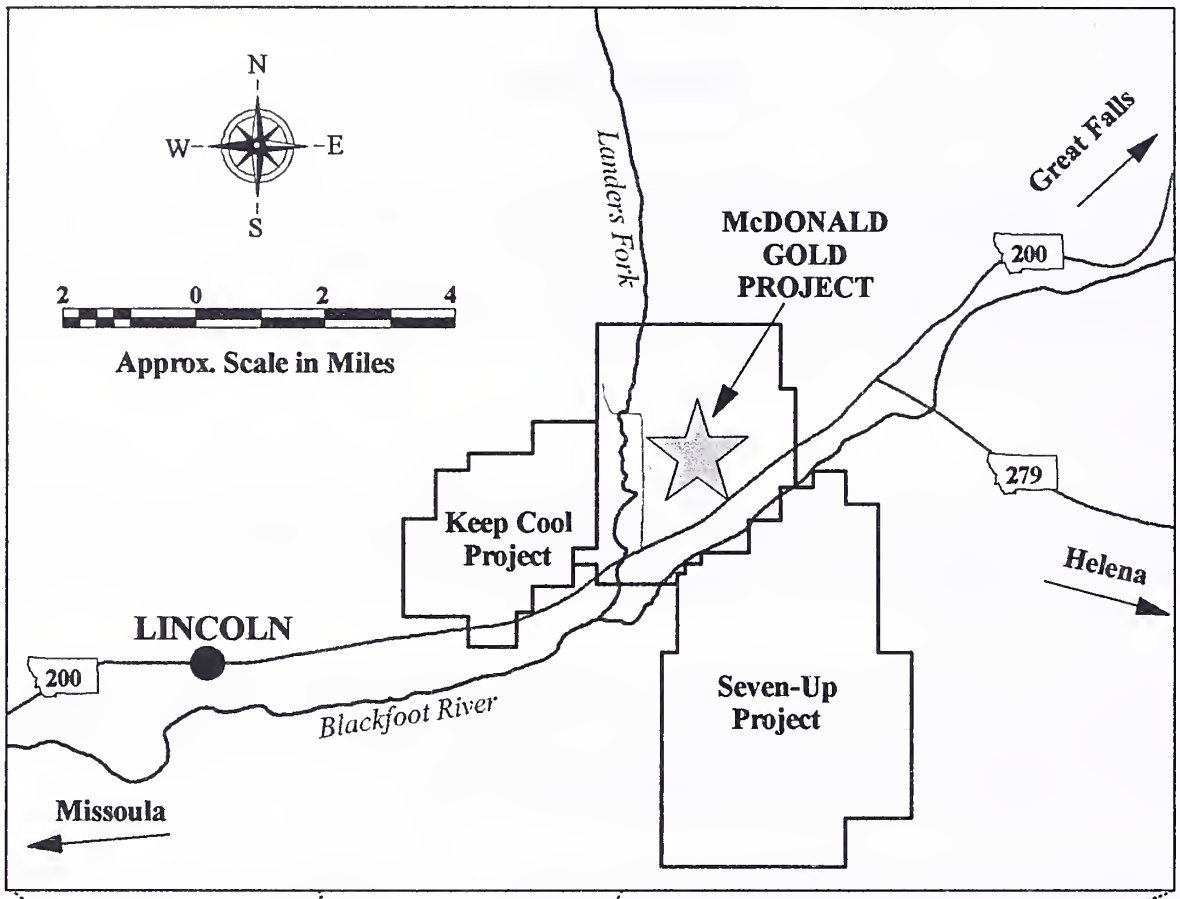
Two mining scenarios have been presented by the Joint Venture -- both of which are tied to the market price of gold. The expected case, based on a $375 per ounce market price, would require mining 645 million tons of rock over 14 years. The expanded case, which was submitted at the request of the Department of Environmental Quality, is based on a $600 per ounce market price. This scenario would require mining 980 million tons over 18 years. Reclamation activities would continue for 7-8 years after cessation of mining.

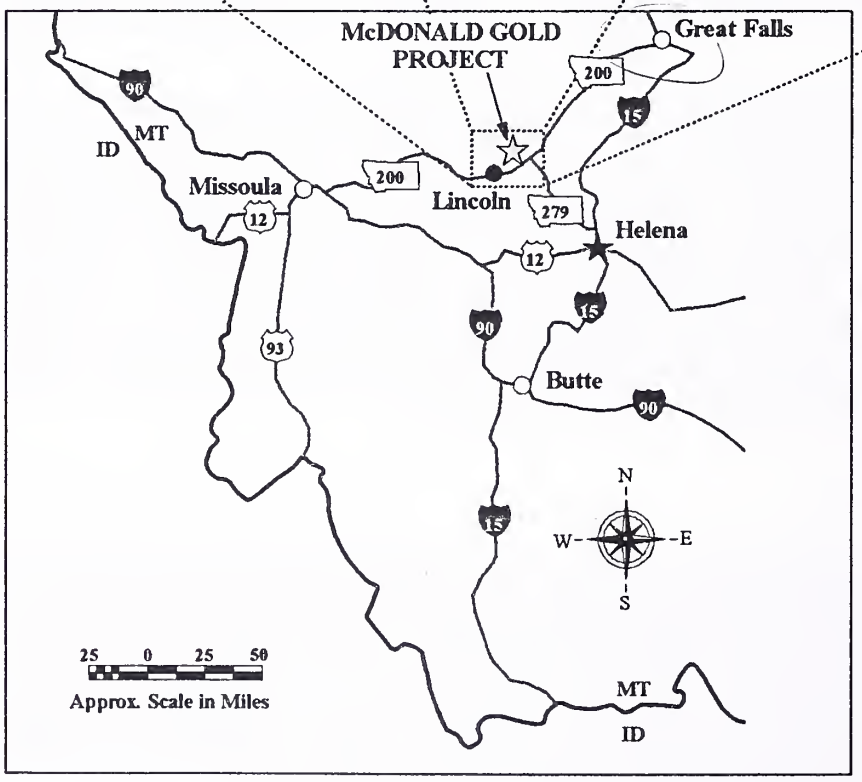
Two lined leach pads would be constructed to hold 100 percent of the ore produced over the project life. Ore would be blasted and hauled either directly to the run-of-mine leach pad (Site C) or to a crushing facility and then to the crushed ore leach pad (Site A). Barren rock would be hauled to one of two rock piles (Site D or E). Select barren rock would also be used for various construction needs, such as solution collection impoundments, leach pad foundations, and road surfacing. Dilute cyanide solution would be percolated through the ore to dissolve the precious metals. The "leachate" containing gold and silver would then be collected and processed by carbon adsorption, carbon-stripping, and electrowinning to recover the dissolved gold and silver. Dore´ bullion, a mixture of gold, silver, and small amounts of other metal impurities, would be produced on-site and shipped to an off-site refinery for final processing.

NEPA, MEPA, and the Scoping Process

The National and Montana Environmental Policy Acts (NEPA/MEPA) require preparation of an EIS if any action taken by the State of Montana or the federal government might "significantly affect the quality of the human environment." The Montana Department of Environmental Quality, Montana Department of Natural Resources and Conservation, and U.S. Army Corps of Engineers have determined that the proposed McDonald Gold Project may have significant environmental impacts; therefore, preparation of an EIS is necessary to fulfill the requirements of both laws. DEQ has retained the services of a third-party consultant (Morrison-Maierle Environmental Corporation of Helena) to assist in preparing the EIS.

Figure 1-1 Project and Property Location Map

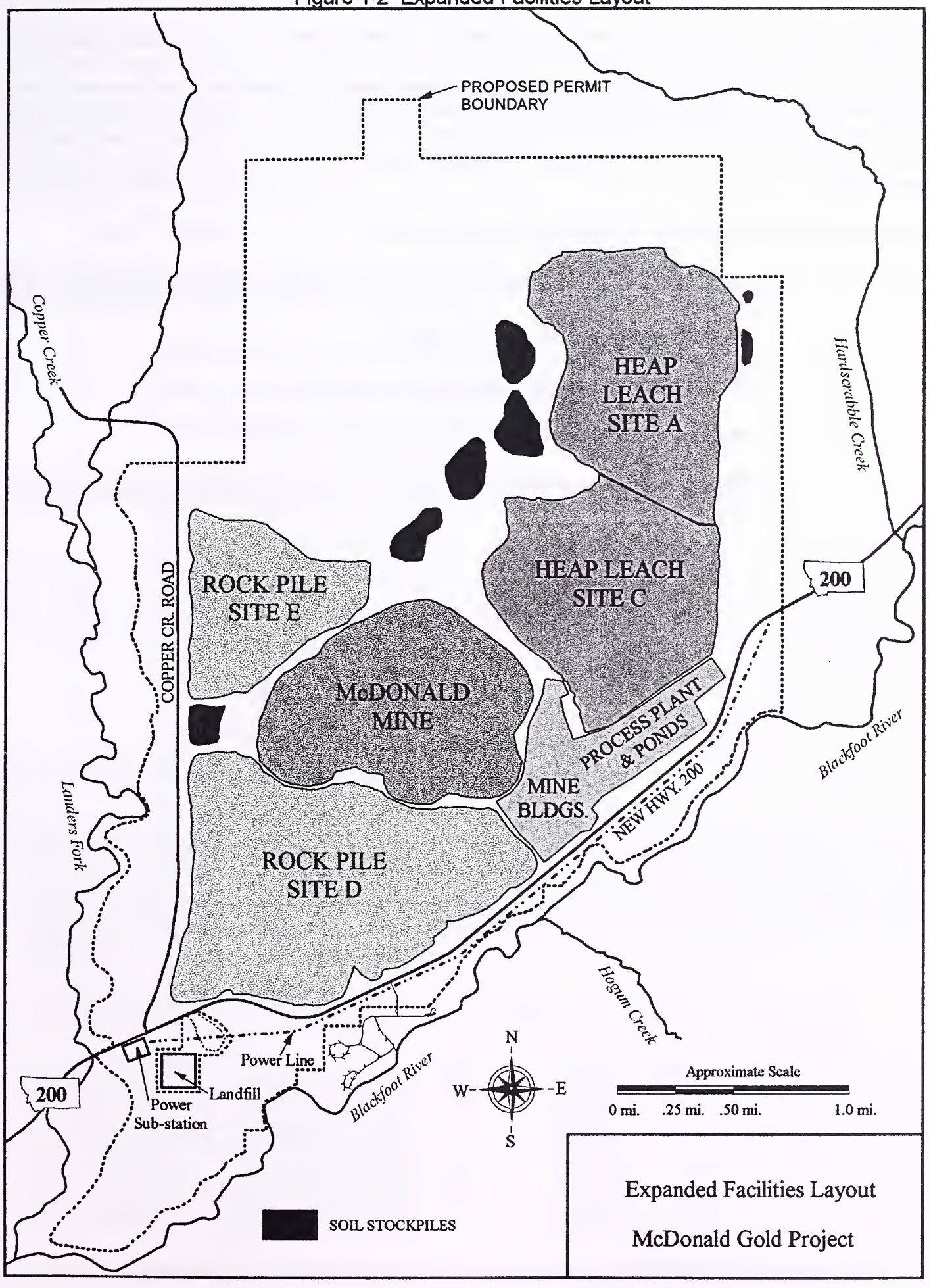




Project and Property Location Map

McDonald Gold Project

Figure 1-2 Expanded Facilities Layout



Scoping is required under NEPA and MEPA as a means of identifying the range of issues to be addressed in the EIS. It is an information gathering exercise typically conducted early in the development of the EIS to ensure comprehensive impact analysis. It serves five main purposes: 1) identifies significant issues to be analyzed, 2) provides a basis for identifying alternatives to the proposed action, 3) suggests the level of detail with which issues and alternatives should be addressed in the EIS, 4) provides a basis for identifying mitigation measures, and 5) provides a basis for eliminating issues and alternatives from detailed study where appropriate.

Scoping activities for the McDonald Gold Project have included:

- Conducting public scoping meetings in Lincoln, Great Falls, Missoula, and Helena
- Conducting agency scoping meeting in Helena
- Collecting written comments from members of the public
- Collecting written comments from local, state, and federal agencies
- Identifying issues and generating preliminary issue statements from the meetings and written comments

2.0
METHODS

Overview of Scoping Activities

Scoping Meetings

One agency scoping meeting was held in Helena on October 11, 1995. Forty-five representatives from the following government agencies attended the meeting:

- Montana Department of Environmental Quality
- Montana Department of Natural Resources and Conservation
- Montana Department of Fish, Wildlife, and Parks
- Montana Department of Transportation
- State Historic Preservation Office
- Hard Rock Mining Impact Board
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency (EPA)
- U.S. Fish & Wildlife Service
- U.S. Forest Service -- Helena National Forest
- Lewis and Clark County

A total of 275 comments were logged during the agency scoping meeting.

Public scoping meetings were held in Lincoln, Great Falls, Missoula, and Helena. Representatives from the Seven-Up Pete Joint Venture were available to answer questions regarding technical details. Montana Department of Environmental Quality, Montana Department of Natural Resources and Conservation, and U.S. Army Corps of Engineers staff presented a summary of the proposed project and the permitting process to the public. An open-house followed to elicit comments from the public. Attendance and comment totals were as follows:

Meeting Location	Meeting Date	Number of Attendees	Number of Comments
Lincoln, Montana	October 12, 1995	300-325	275
Great Falls, Montana	October 30, 1995	200-250	70
Missoula, Montana	November 1, 1995	350-375	124
Helena, Montana	November 2, 1995	200-250	90

Written Comments

Interested individuals and government agencies commented in writing throughout the initial scoping period. Most of the comment letters originated from the Lincoln, Great Falls, Helena, and Missoula areas. Letters were also submitted from other regions of Montana and as far away as Florida, New York, and California. Comment letters were received from the following agencies:

- U.S. Forest Service -- Helena National Forest
- U.S. Environmental Protection Agency (EPA)
- U.S. Fish & Wildlife Service
- Montana Department of Fish, Wildlife, and Parks
- State Historic Preservation Office
- Montana Department of Transportation
- Hard Rock Mining Impact Board
- Cascade, Powell, Missoula, and Lewis and Clark Counties
- Cities of Helena, Missoula, and Great Falls.

DEQ, DNRC, and the Army Corps of Engineers have received 377 letters as of this printing. These letters generated approximately 3500 comments. Nearly two-thirds of these comments were redundant. Approximately 975 were identified as original comments and included in this report. Additional letters will be reviewed upon receipt. If new issues are identified, they will be incorporated into the analysis as appropriate.

Preliminary Comment Analysis

The results of public scoping on the McDonald Project EIS were recorded using the following four-step, database-oriented approach:

1) The EIS consultant's project and/or resource managers reviewed the transcripts and identified comments or issues.

2) Generally stated comments were formulated into issues to ensure coverage throughout the process.

3) The team developed issue categories and preliminary issue statements to classify individual comments.

4) Issue categories, preliminary issue statements, and issues were logged into a tracking program for ease of access and source identification.

Issue categories, preliminary issue statements, and individual issues may be added, combined, modified, or deleted as the EIS progresses and the project's impact potential is defined.

Issues Analysis and Alternatives Development

This report documents the results of the formal scoping process. No significance analysis has been conducted by the EIS consultant or the agencies involved in preparing the EIS. All of the issues and/or questions identified in the following pages will be presented to the EIS interdisciplinary team for review. The team will work with the various resource managers to determine significance and identify which issues are within the scope of the EIS and drive alternatives development. Certain comments may reflect personal biases, general opinions about mining or the mining industry, or policy issues. These types of comments are typically outside the scope of the EIS. Issues that are carried forth into the EIS will be evaluated in terms of the project's potential to affect a particular resource (e.g., wildlife, recreation, etc.) or a resource's potential to affect the project (e.g., geologic hazards, climate, etc.).

The following section describes the issue categories, preliminary issue statements, and specific issues identified during the scoping process. The term "impact" is used throughout the following discussions. It is important to understand that "impact" does not always carry a negative connotation. The EIS will consider both the positive and negative impacts of the McDonald Gold Project.

3.0
SUMMARY DESCRIPTION OF THE ISSUES

Issue Categories

Issue categories serve as the most general level of classification. Twenty-seven preliminary issue categories were defined as a result of comment analysis:

- Water Resources
- Geochemistry
- Wildlife
- Fisheries/Aquatics
- Vegetation and Wetlands
- Cultural Resources
- Soils and Reclamation
- Geology/Topography
- Noise/Air Quality
- Visuals/Aesthetics
- Recreation/Wilderness
- Socioeconomic
- Land Use/Access
- Transportation
- Emergency Response
- Water Rights
- Property Rights
- Intangibles
- Health and Safety
- Environmental Policy and Planning
- Geotechnical Engineering
- Mine and Process Engineering
- Risk Assessment
- Monitoring & Enforcement
- Hazardous Materials
- Cumulative Affects
- Alternatives
- Miscellaneous

Preliminary issue statements were then developed under each of the preliminary issue categories.

Preliminary Issue Statements

Water Resources

Impact of Mine Operations on Surface Water Quantity

Concerns are related to short- and long-term impacts of mining on surface water quantity. Issues identified include 1) impacts to surface flows in Alice Creek, Landers Fork, and the Blackfoot River from dewatering, future shutdown of the operational dewatering wells,and post-mining land uses, 2) impacts to consumptive and non-consumptive uses, and 3) the impact of direct withdrawals on the Landers Fork and Blackfoot River.

Impact of Mine Operations on Surface Water Quality and Characteristics

Concerns are related to short- and long-term impacts of mining on surface water quality. Issues focus on impacts to surface waters in the Blackfoot, Copper Creek, North Valley Creek, and Landers Fork from stormwater runoff, contaminated ground water, hazardous material spills, processing effluent, and cumulative effect of downstream developments. Concerns also relate to the potential for impacts to downstream waters including the lower Blackfoot and Clark Fork Rivers, as well as Milltown Reservoir. Specific contaminants mentioned include cyanide, nitrates, acid rock drainage, arsenic,

antimony, cadmium, manganese, mercury, and zinc, to name a few. Other concerns focus on the changes to the characteristics of local and downstream surface waters including the impact of the mine on water temperature, hardness, and pH. Concern was expressed regarding the quality of the water in the proposed pit lake after cessation of mining.

Impact of Mine Operations on Ground Water Quantity

Concerns are related to short- and long-term impacts of mining on ground water quantity. Issues include 1) whether and to what extent ground water flows in the Landers Fork and the Blackfoot Valley alluviums would be impacted by dewatering and future shutdown of the dewatering wells, 2) whether and to what extent consumptive and non-consumptive uses would be impacted on site and downstream, and 3) impact to private wells in the area (including Lincoln).

Impact of Mine Operations on Ground Water Quality and Characteristics

Concerns are related to short- and long-term impacts of mining on ground water quality. Principle areas of concern focus on issues associated with impacts to ground water in the Blackfoot and Landers Fork drainages from stormwater runoff, land application, highway maintenance, hazardous materials spills, infiltration of cutoff well water, process effluent, and sanitary sewage disposal from downstream developments. Issues were also raised regarding the potential for impacts to downstream ground water including the lower Blackfoot and Missoula's sole source aquifer. Specific contaminants of concern include nitrates, acid rock drainage, cyanide, elemental arsenic, antimony, cadmium, manganese, mercury, and zinc, to name a few. Other concerns focused on changes to the characteristics of local and downstream ground waters including the impact of the mine on water temperature, hardness, and pH. Substantial concern was expressed regarding impacts to ground water from the proposed pit lake after cessation of mining.

Impact to Ground/Surface Water Connections from Mine Activities

Principle concerns revolve around the impact of mine operations on surface water due to the local hydrologic conditions (including hydrologic/alluvial connections). Three key areas of concern include 1) impacts of pit dewatering on aquifers and the subsequent effects to surface flows, 2) seepage of contaminants from the mine leaking into ground water and daylighting in the Blackfoot or Landers Fork, and 3) land applied process water infiltrating into groundwater and impacting the Landers Fork.

Impact to Ground Water Hydrology

Concerns focus on the impact of dewatering and mining on ground water features and functions. Concerns include 1) ensuring an accurate understanding of the function and character of the fractured bedrock, 2) impact of dewatering on groundwater flows, 3) impacts to bedrock seeps and springs, 4) seasonal water table fluctuations, and 5) stabilization of the local ground water hydrology after cessation of mining.

Impact to Surface Water Hydrology

Concerns are related to short- and long-term impacts of mining on surface water hydrology. Principle areas of concern focus on 1) flow regimes in the Blackfoot River, Landers Fork, and Hardscrabble Creek, 2) substrate conditions during low flows, 3) intergravel environments and 4) fluvial

geomorphology. Other areas of concern include the impacts of highway realignment on fluvial geomorphology and the substrate character of the Blackfoot River as well as drainage characteristics.

Impact of Water Management Systems

Principle concerns revolve around the effectiveness of the proposed water management system to minimize impacts to water resources. Concerns include 1) effects of reduced seepage rates under the facilities on stormwater runoff, 2) impacts of excess water in the leaching circuit, 3) impact of changes to the pit dewatering system on overall water budget for the site, 4) impact of snow removal and storage on runoff, and 5) effectiveness of leak detection and mitigation.

Impact of Catastrophic Storm Event on Blackfoot and Landers Fork

The short- and long-term impacts of a catastrophic storm event on the Landers Fork and Blackfoot Rivers are of primary concern. Issues identified include whether the Blackfoot and Landers Fork would be adversely impacted in the event of a catastrophic storm event or high amounts of snowmelt and runoff. The basis for concern involves a storm event that exceeds the capacity of the water management system.

Geochemistry

Impact of Mine-Related Acid Rock Drainage

Primary Concerns are related to short- and long-term impacts of the mine on production of acid rock drainage. Concerns focus on 1) the probability of acid production, 2) its impact on wildlife and water quality, and 3) contingency plans for addressing it.

Impact of Local Geology and Hydrology on Pit Water Chemistry

Concerns focus on 1) impact to pit water chemistry from accumulation of sediments on the pit floor, 2) seasonal turnover of the pit lake and the effect on pit water chemistry, and 3) changing redox conditions as the mine pit walls become exposed.

Impact of Mine Development on Ambient Water Chemistry

Concerns revolve around the impact of mine development on ambient water chemistry. Key areas include 1) impact of water being circulated from the alluvium back into the alluvial aquifer through the infiltration galleries, 2) impact of the geochemical characteristics of local rock units, and 3) long-term impacts of ineffective heap neutralization.

Soils and Reclamation

Impacts on Reclamation Success

Issues include 1) reclamation effectiveness and its ability to provide adequate wildlife habitat and prevent long-term water quality degradation, 2) stability of the post-closure pit wall, and 3) the impact of insufficient topsoil replacement.

Impacts to Soil Resources

The main concerns are whether enough soil can be stockpiled and the effects of long-term storage on soil viability. Other issues include impacts of soil disturbance on human health and impacts to the soil from mine-related contaminants.

Impact of the Mine on Soil Stability and Geologic Features

Concerns involve impacts to the bedrock fracture network by pit development and loading from heap leach pads and rock piles. Included within this category is the impact to soil erosion rates both on and off site.

Impact of the Mine on Topographic Features

The main concern is the short- and long-term impact of the mine on natural topography.

Vegetation and Wetlands

Impact to Vegetation

Concerns include 1) noxious weed management, 2) impacts to sensitive and T&E species, 3) revegetation success standards, and 4) effectiveness of the proposed revegetation plans in achieving reclamation success.

Impact to Wetlands and waters of the U.S.

Concerns are related to short- and long-term impacts of mining operations on wetlands and waters of the U.S. Key areas include 1) impact of pit dewatering and the water management system on streams and wetlands in and adjacent to the project site, 2) impacts to functions and values of streams and wetlands, 3) impacts to riparian habitat and wetlands adjacent to streams and rivers, 4) impacts of pollutants and sedimentation on streams and wetlands, 5) wetland mitigation, and 6) impacts to long-term water quality in streams and wetlands.

Wildlife

Impact of Mine Development on Wildlife Health and Population Characteristics

Concerns focus on impacts to wildlife from mine-related activities such as blasting, lights, operational noise, traffic, earthwork, effluent, ore and waste rock toxicity, and long-term disturbance of habitat. Other concerns include direct, indirect, and cumulative impacts to wildlife -- especially threatened and endangered species -- from disturbed water sources, entry into pond and pit areas, poaching, cyanide spray drift, increased human encounters, and residual salts.

Impact of Mine Development on Wildlife Habitat, Migration, and Distribution

Main concerns are short- and long-term impacts of the mine on wildlife habitat and migration corridors. Areas of concern include 1) impact to winter range carrying capacity, 2) impact to elk calving season, 3) impacts to elk, moose, black bear, grizzly bear, mule deer, and white-tailed deer

summer use of the project area, 4) impact to wildlife habitat outside the project area, and 5) effectiveness of the proposed post-mining revegetation plan on minimizing long-term direct, indirect, and cumulative impacts to wildlife.

Fisheries/Aquatics

Impact of Mine Development on Fish and Their Habitat

Concerns include the impact of mine development on bull and westslope cutthroat trout habitat. Specific areas include 1) the impact of pit dewatering and changes in river flows due to the water management system, and upwellings, 2) impacts of water temperature changes, and 3) impacts of changes in water quality.

Impact of Mine Development on Fish Health, Population, and Distribution

Concerns include 1) impacts to the health, population, and distribution of fish from the operational water management system, influx of people in the valley and the potential increase in fishing pressure, shock waves from blasting and operations, and siltation, 2) impacts to bull trout and westslope cutthroat trout spawning, incubation, rearing, and migration, 3) bioaccumulation of toxins in fish, 4) impact of the mine on fishery recovery efforts, and 5) the impact of ARD,ammonia toxicity, heavy metals, or reagent contamination of surface waters.

Impact of Mine on Aquatic Life

Concerns are related to short- and long-term impacts of mining operations on aquatic life. Key areas include 1) the impact of chemical reagents, ARD, and heavy metals, 2) impact of dewatering, siltation, and changes in river flows on aquatic life and habitat, and 3) impact of nitrates from blasting and fertilization necessary for revegetation.

Cultural Resources

Impact to the Archaeological Value of the Region

Concerns include the impact of the mine on traditional values and known cultural/archaeological resources in the area. Specific concerns include 1) impact to the Cummings Cabin, 2) impacts of increased people on resources, 3) impact to old Lincoln Highway, Lewis and Clark and Pokolara trails, and 4) impact on Native American archaeological sites and Traditional Cultural Practices areas.

Noise and Air Quality

Impact of the Mine on Air Quality

Concerns include impacts of the mine on air quality in the Blackfoot and Landers Fork valleys. Specific concerns include fugitive emissions from mine operations, wind-blown particulates, cyanide drift, fumes, and conditions associated with harmful atmospheric conditions such as inversions and fog from the pit. Other issues include impacts to the nearby Class I airshed and the applicability of Prevention of Significant Deterioration (PSD).

Impact of Mine-related Noise on Surrounding Area

Key noise issues focus on impacts from drilling, blasting, crushing, and equipment operations on residents and wildlife. Other concerns include impacts from increased traffic on Highways 200 & 279 and the impact of mine-related noise on recreational experiences in the Bob Marshall and Scapegoat Wilderness areas and on local retreats.

Visual/Aesthetics

Impact to Visual Character of the Area

These concerns include the impact of the mine on short- and long-term visual enjoyment of the area. Specific concerns include 1) impact of the open pit on visual enjoyment, 2) impact on scenic values from key observation points, 3) impact on foreground and middleground viewing attention of Forest Service visitors, 4) impact to the recreational use of the area because of its scenic splendor, and 5) impact on scenic quality from the Blackfoot Valley, Bob Marshall and Scapegoat Wildernesses, and the passes leading to the upper Blackfoot Valley.

Recreation and Wilderness

Impact of Mine Development on Recreational Opportunities

Recreation concerns centered on the potential loss of recreational opportunities. Specific issues include short- and long-term impacts to developed and dispersed recreational opportunities in the immediate area. These include snowmobiling, outfitting, guiding, hunting, fishing, hiking, skiing, campground use, and general tourism. Other concerns focus on direct impacts to recreation on the Blackfoot River and possible water degradation. Concerns regarding indirect or secondary impacts were voiced by individuals concerned about the influx of people to the area. Impacts to recreational opportunities for future generations was also voiced as a concern.

Impact of Mine Development on Illegal Recreational Activities

A small number of individuals had concerns regarding the impact of the mine and the associated increase in population on illegal activities such as poaching, illegal harvests of bull trout, snowmobiling in the Bob Marshall and Scapegoat Wilderness Areas, etc..

Impact of Mine Development on Wilderness

These concerns include the impacts of the mine on the Bob Marshall and Scapegoat Wilderness ecosystems. Specific concerns include the impact of lights, blasting, and noise on the solitude of the areas. Other issues include the impact to wildlife migration, populations, and distribution in and around the Bob Marshall and Scapegoat Wilderness Areas.

Socioeconomic

Impact to Existing Tax Structure

Concerns include impacts to the local, regional, and state taxes and taxpayers. Specific issues included 1) impacts on individual and corporate taxes, including taxes of landowners that hold a majority of the land in the area, 2) impact on tax revenues at the local and state levels, 3) impact to tax burdens on retired peoples in the area, 4) long-term impacts to taxpayers after premature or scheduled cessation of mining, and 5) impacts of highway relocation on taxpayers.

Impact of Short Term Economic Gain vs. Long Term Economic Sustainability

Concerns focus on long-term impacts to the existing "sustainable" economy that is based on a clean river and abundant undisturbed recreational opportunities. Issues include 1) impacts to businesses and jobs created because of the Blackfoot River, terrain and overall beauty of the area, 2) impact of the mine's wage rate on local businesses, 3) impacts to local and regional businesses that rely on mining for success, 4) impact to tourism, 5) impact of mortgage life extending beyond mine life, and 6) impact of post-mining land use on economic sustainability in the future.

Impact of Mine Development on Job Rates and the Economy

Concerns include short- and long-term impacts to state and local employment rates and economy. Most of the issues focus on the positive impacts to employment and the economy in general. Concerns include 1) impacts to local non-mine workforces, 2 hiring of equitable numbers of locals and Montanans, 3) impact to the economy if gold prices fall and mining ceases, 4) impacts to cost of living in Lincoln and surrounding communities, 5) contingencies for boom/bust scenario, 6) economic impact on the futures of local teenagers, 7) economic impact to other land-reliant industries such as ranching and timber, and 8) impact on local economy from relocation of Highway 200.

Impact of Mine Development on Property Values

Concerns are related to short- and long-term impacts of mine development on property values. Key concerns relate to the 1) impact on general property values locally and throughout the region, 2) long-term impacts to property values for recreation, and 3) impacts on land values and the resulting changes in land uses.

Impact of Mine Development on Housing

Key issues focus on the short- and long-term impacts to housing in Lincoln and surrounding communities. Housing issues include 1) impacts on housing availability in Lewis and Clark, Missoula, and Cascade Counties, 2) distribution of the work force, 3) impact to the overall housing market and house values, 4) impact of available housing on in-migrating labor and the resulting impact from temporary housing, and 5) impact of transient "job hunters" on public lands and facilities.

Impact of Mine Development on Schools and Education

School issues relate primarily to overcrowding and the quality of education received. School-related issues include 1) impacts of mine-related taxes on schools, 2) impact of royalties on the state school

system (school trust), 3) impacts of in-migrating students on the class size/teacher ratios, 4) impacts to public schools that exceed their capacity as a result of in-migrating population, 5) impacts to school operating costs, and 6) impacts to school bussing needs.

Impact of Mine Development on Infrastructure and Services

These concerns include the short- and long-term impacts on infrastructure and services in Lincoln and surrounding communities, including Helena. Specific issues include short- and long-term impacts to roads, bridges, sewage, electrical, and other infrastructure in Cascade, Powell, Missoula and Lewis and Clark Counties. Issues related to services include medical and fire emergency response, law enforcement, health care facilities, electric and gas service, parks, library services, wastewater treatment, and sanitary services.

Impact of Mine Development on Social Conditions

Concerns include the ethical behavior of the in-migrating population and overall social health of Lincoln and the surrounding area. More specific concerns include 1) alcohol and drug abuse in Lincoln and the surrounding area, 2) deterioration of community cohesiveness should a polarity develop, 3) increased violence toward women, and 4) increased crime rates (including vandalism, burglaries, rape, drug abuse, etc.).

Impacts to Governmental Resources

Concerns are related to short- and long-term impacts of mine development on city, county, state, and federal agencies. Specific concerns originate from every agency and relate to the need for additional personnel, equipment, maintenance facilities, monitoring and enforcement, administration, and the budgets to fund them.

Land Use and Access

Impact to Land Use

Primary concerns focus on impacts to existing land uses resulting from leakage-related contamination or uncontrolled releases of hazardous materials. Specific issues relating to current land use include 1) the impact of contamination on downstream land uses, and 2) impact on development in the valley. Issues relating to future land use include 1) impact of post-mining pit water quality on proposed land use, 2) validity of the proposed post-mine land use, and 3) impact of post-mining land use on wildlife and habitat development.

Impact to Public Land Access

Major issues include access to private, state, and federal land. Specific issues include 1) access to currently protected, remote habitat, 2) Wilderness access and the public's use thereof, 3) access to Copper Creek Road, and 4) access to the post-mining pit area.

Transportation

Impact to Highway Integrity

Concerns include the impact of direct and indirect mine-related traffic on the integrity of county and state roads, bridges, and other transportation facilities. Other closely related issues include 1) ability of maintenance crews to attend needed facilities, 2) impacts to equipment, supplies, and storage, 3) impact to level of service classifications.

Impacts to Traffic Flow and Safety

Concerns include short- and long-term impacts of the mine on traffic flow and safety along county and state roads. Specific issues include 1) impact to wildlife mortality rates on the highway, 2) impacts associated with materials, reagent, and explosives transportation on Highways 200 and 279, 3) maintenance of highway design standards, 4) impact of blasting on traffic flow and safety, 5) impact of safety features on Hwy 200 such as acceleration and deceleration needs, left-turn storage, sight visibility, and intersections, 6) changes in accident rates along highway realignment, 7) impact to pedestrian and driver safety in Lincoln, and 8) state liabilities associated with hazardous waste transportation.

Impact of Highway Relocation

Issues include 1) impacts to residents in the Blackfoot and Hogum Creek drainages from relocation of the highway, 2) increased maintenance requirements, 3) impacts to Aspen Grove campground, and 4) impacts to the relocated highway from infiltration activities.

Hazardous Materials

Hazardous Materials

Major concerns relate to the transport, production, and disposal of hazardous materials at the mine. Specific issues include 1) impacts to ground and surface water from hazardous waste spills or leaks, 2) state liability under CERCLA and CECRA, 3) types of hazardous materials, their transport, generation and disposal methods, and 4) the risk of spills.

Emergency Response

Emergency Response

Concerns focus on the transportation and storage of hazardous materials and the capability to respond to a potential spill. Specific issues include the impact to the Lincoln Volunteer Fire Department and its capability to respond effectively, and the potential impacts of inadequate responses.

Property Rights

Impact of Mine Development on Local Property Rights

Major issues relate to property rights of local and downstream landowners. Concerns include 1) impacts to the rights of cabin/land owners on state lease land within and near the mine property, and 2) consequences of unresolved leases and rights-of-way for land on which the operation or realigned highway is located.

Water Rights

Impact of The Mine on Upstream and Downstream Water Rights

Concerns are related to short- and long-term impacts on water rights of upstream and downstream water users. Specific issues include 1) impact of contaminated surface and ground water on downstream water rights, 2) impact of stream flow changes on downstream water rights, and 3) effects on downstream hydropower water rights.

Health And Safety

Impact of Mine on Local Health and Safety

Concerns focus on short- and long-term health and safety of residents and guests in Lincoln and the surrounding area. Specific concerns include 1) increased highway traffic and pedestrian safety, 2) impacts of the operation and its chemical use or contamination on the general health of the population, including cancer and asthma concerns, 3) impact of electromagnetic radiation on residents under or near the new powerline.

Environmental Policy and Planning

Miscellaneous Policy/Planning Concerns and Impacts

Concerns in this section often refer more to agency policies. Primary concerns focus on the need for adequate bonding. Specific concerns include 1) the corporate environmental record and financial status, 2) standards and the decision making process, 3) contingencies for environmental protection, 4) bond calculation alternatives, 5)constitutional rights of Montanans, and 6) interagency coordination in planning and oversight.

Geotechnical Engineering

Impact of Catastrophic Events on Mine Stability

Major issues relate to the performance of geotechnical design components during and after a catastrophic flood or seismic event. Concerns include 1) impact of an earthquake, flood, or other catastrophic event on facility and open pit stability, 2) impact of reclassified seismic ratings on design requirements and performance, and 3) stress impacts on liner leakage rates.

Impact of Geotechnical Failures

Issues include general stability of open pit and mine facilities. Concerns include 1) geotechnical failures of facilities (i.e. rock seams opening, concrete cracking, liner leaks, etc.), 2) failure and contingencies for the leach pads, ponds, and rock piles, 3) ability to repair liners under partial or full loads, 4) impact of seasonal variations on liner integrity during installation and operation, 5) feasibility of crushing and leaching system, 6) timeframes from leakage to significant contamination, and 7) impacts to the environment from repair activities.

Impact of Blasting on Surrounding Area

Concerns include the local and regional impacts of blasting on structures and water wells.

Mine and Process Engineering

Process Impacts

Concerns focus on the potential for contamination from operational processes. Specific concerns include 1) process controls to minimize leakage, 2) impact of blending ores, 3) water treatment in perpetuity, and 4) disposal of surplus water at the land application sites.

Risk Assessment

Risk Assessment

Concerns include the overall risk associated with various parts of the operation. Concerns include 1) risk of environmental degradation caused by design flaws or catastrophic events, and 2) risk of long-term environmental degradation from reclamation failure.

Monitoring And Enforcement

Impact of Monitoring and Enforcement Programs

Issues focus primarily on a need for operational and post closure monitoring. Specific concerns include 1) monitoring and contingencies for ARD generation, 2) monitoring of environmental conditions, 3) short- and long-term monitoring enforcement, 4) determination of significance for leaks and other problems during operation, 5) monitoring of leach pad and liner for leakage and determination of liability in the event of failed compliance with standards and policy, 6) seasonal effectiveness of proposed BMP's and compliance with NPDES/MPDES requirements, 7) treatment plant and land application monitoring, 8) mixing zone monitoring and enforcement, 9) ground and surface water monitoring, and 10) air quality monitoring. Other concerns include overall enforcement, including who would be enforcing, how often, and how budgets would impact monitoring and enforcement efforts.

Quality-Based Attributes (i.e. quality of life, sense of place, spiritual bonds, etc.)

Impact of the Mine on Quality-Based Attributes

Concerns relate to short- and long-term impacts on the quality of life for local and regional residents as well as visitors to the area. Specific concerns include 1) impacts to rural lifestyles, 2) quality of visitors' experiences, 3) impact to intrinsic values, 4) changes to the area's character -- including the Blackfoot River, and 5) impact to the area's spiritual attributes.

Alternatives

Alternatives Identified for Consideration

Alternatives to the proposed action include modified designs, facility locations, or implementation plans. Specifically, a 1000-year storm event was suggested as a basis for the hydrologic analysis, as well as alternative bond calculations, reclamation procedures, and development scenarios tied to the market price of gold. Other alternatives include 1) establishment of a trust fund for environmental improvements in the Blackfoot drainage, 2) triple or thicker liners under all facilities, 3) batch neutralization, 4) in-situ mining, 5) development of a pilot program to test technologies, 6) the use of non-nitrate based blasting agents, 7) a community monitoring plan, 8) the implementation of a glass and metal recycling program, 9) pit backfilling, 10) operational limitations, and 11)mine life extensions.

Cumulative Impacts

Cumulative Impacts of Developments and Activities

Sources of potential cumulative impacts include 1) development of other SPJV properties (Keep Cool and Seven-up Pete), 2) other mining projects, including historic mining in the Blackfoot drainage, 3) Superfund cleanup efforts and alternatives on Silverbow Creek and the Blackfoot and Clarks Fork Rivers, 4) MDT's long-range construction plans, and 5) timber harvests. Other cumulative activities include 1) Bouma Post Yard, 2) old landfill, 3) prescribed burns, 4) road salting, 5) highway maintenance, 6) mine exploration, 7) rural subdivisions, 8) Lincoln sewer system, 9) treatment plants, 10) firewood gathering, and 11) horseback, motorcycle and snowmobile riding.

Miscellaneous

Miscellaneous

Miscellaneous concerns include 1) the impact to the biological sustainability of the regional watersheds, 2) the suitability of the Blackfoot valley to support a mine, and 3) the ethical implications of mine development for gold extraction. Other issues include applicability of the Bevill Rulings and the overall impact to supplies of fossil fuels.

4.0
PRELIMINARY ISSUES LIST

WATER RESOURCES

IMPACT OF MINE OPERATIONS ON SURFACE WATER QUANTITY

Issue	Comment Source
What would be the impact to flows in the Blackfoot river from proposed dewatering?	1,3,55,60,80,108,209,218, 289,324,330,333,348,355, 377(p7),M1p5,M2,M3,M4, M5
What would be the impact to flows in the Landers Fork from proposed dewatering?	1,3,60,209,301,330,333, 348,355,M1p5,M2,M3,M4,M 5
Would flows in Alice Creek be impacted by dewatering of the mine?	1,3,M2,M3,M4,M5
What would be the impact to surface water quantity from the mine?	10,91,125,176,350,358, M2,M3,M4,M5
What would be the impact of the mine on consumptive and non-consumptive uses such as domestic, irrigation, and recreation, in the Blackfoot and Landers Fork Basins?	71,382,M2,M3,M4,M5
What would be the long-term impacts to water quantity in Landers Fork and the Blackfoot?	107,M2,M3,M4,M5
What would happen to flows in the Landers Fork and Blackfoot when dewatering pumps are turned off, and pit is allowed to refill.	382,M3p2,
What impact would direct and indirect withdrawals from surface waters have on the Blackfoot and Landers Fork Rivers (EPA)?	377(p14),
What impact would evaporation from the post-mining pit have on surface water quantity?	382

IMPACT OF MINE OPERATIONS ON SURFACE WATER QUALITY & CHARACTERISTICS

Issue	Comment Source
What would be the short- and long-term impacts of mine and highway related sedimentation on the Landers Fork and Blackfoot River?	2,3,6,26,44,56,137,165, 218,301,324,325,330,382, M1p5,M1p6,M2,M3,M4,M5
How would the Blackfoot River and Landers Fork be impacted in the event of cyanide and other reagent leakage into these waterways?	2,3,4,32,38,39,43,50,56, 58,68,70,71,85,89,108,111, 116, 117,120,124,129,137, 145,151,165,170,176,181, 194,203,220,227,228,233, 276,280,284,286,289,304, 305,314,317,321,323,325, 328,344,347,355,356,365,382 M1p7,M2,M3,M4,M5

What impact would the mine have on the Blackfoot and Landers Fork water quality?	10,10a18,21,25,26,29,30, 32,35,42,46,52,55,64,69, 70,80,91,92,95,101,108, 110,111,121,125,126,128, 131,134,144,145,147,151, 181,182,209,213,226,258, 260,265,269,276,280,290, 293,298,300,302,319,330, 333,338,342,346,350,352, 356,360,377(p7),382,M2,M3, M4, M5
What impact would the mine operation have on surface water temperature?	71,80,221,330,360,382,M2, M3,M4,M5
What guarantees or contingencies would be in place to protect long-term surface water quality?	11,74,80,128,129,144,152, 197,268,274,M2,M3,M4,M5
What would be the potential for increased arsenic contamination in the Milltown Reservoir area?	28,M2,M3,M4,M5
How would runoff from snowmelt impact surface water?	33,M2,M3,M4,M5
How would rivers in the Missoula area (including the Clarks Fork) be impacted by the mine?	38,71,92,155,M2,M3,M4,M5
How would each subsequent waterway between the mine and the West Coast be impacted in the event of cyanide and other reagent leakage into the Blackfoot?	43,71,M2,M3,M4,M5
What impact would the water that is being pumped into the infiltration trenches have on water quality in the Blackfoot and Landers Fork?	48,176,360,382,M2,M3,M4, M5
What impact would the mine have on the Blackfoot and Landers Fork in the event of a major earthquake?	69,M2,M3,M4,M5
What impact would dewatering and pit development have on the Blackfoot River?	71,324,382,M2,M3,M4,M5
What would be the long-term impacts to water quality in Landers Fork and the Blackfoot?	107,123,146,M2,M3,M4,M5
What would be the impact to water quality in Ovando?	136,M2,M3,M4,M5
How would the mine impact nitrates in the Landers Fork and Blackfoot near the project area and downstream?	168,277,330,335,353,382, M1,M2,M3,M4,M5
What impact would the mine have on the concentrations of iron, copper, lead, zinc, cadmium, silver, mercury and arsenic in the Blackfoot and Landers Fork?	168,271,289,335,344,M2,M3, M4,M5 M1p9,M1p10,
What impact would land application have on metals/reagent contamination in surface water, including North Valley Creek(USFS)?	323,M1p4p5,M2,M3,M4,M5
What impact would the rock piles have on surface water quality?	324,M2,M3,M4,M5
What impact would ammonium nitrate and sulfuric acid have on surface water quality?	365,382,M1,M2,M3,M4,M5
What impact would the treatment of wastewater from the maintenance facilities and equipment washing and service areas have on water quality?	376,382,M2,M3,M4,M5
What impact would nitrates from blasting of waste rock, hydromulch, and runoff from stormwater retention basins have on surface water quality?	382,M1,M2,M3,M4,M5

What impact would contaminated topsoils have on water quality?	210,M2,M3,M4,M5
What would be the cost of perpetual treatment if contamination is present?	258,M2,M3,M4,M5
What impact would the relocation and maintenance of Hwy 200 have on surface water quality (sand/salt, oils and sealers)?	382,M1p17,M2,M5p5,
What would pit water be classified as?	M1p23,M2,
How would pH, hardness (mg/l, CaCO3), etc. and the seasonal range of these surface water quality values be impacted by the operation (EPA)?	382,M3p6,377(9),
What is the potential for mobilization of metals to surface water (elemental arsenic, antimony, cadmium, manganese and zinc) and what contingencies would be in place during operations and post-closure (plan should include leach pad and non-lined rock piles(EPA)?	377(5),382,
What is the potential for soluble mercury to affect the Blackfoot River water quality(EPA)?	377(5),
EIS should establish existing water quality, overall surface water performance goals (i.e., alert levels, tentative permit limits, etc.) and pollutant concentrations and loadings (EPA).	377(11)
EIS should fully explain how the proposed design concepts and other plans would prevent or lessen water quality degradation (EPA).	377(12)
What impact would land application have on surface water quality during high precipitation storm event when ground is already saturated (EPA)?	377(13)
How would seasonal variations impact the sites material balance and the mobilization of metals into surface water(EPA)?	377(P5),
How would potential dewatering of the Blackfoot and Landers Fork from the mine impact concentrations of heavy metals, etc. in the rivers?	330,382,M2,M3,M4,M5

IMPACT OF MINE OPERATIONS ON GROUND WATER QUANTITY

Issue	Comment Source
What would be the impacts to ground water quantity from the mine?	2,3,26,108,182,209,218,382 333,350,358,377(p7),M2,
What would be the impact to supplies in Lincoln's private wells?	18,25,176,189,M2,M3,M4,M 5
What impact would dewatering have on the Blackfoot Valley aquifer?	324,343,M2,M3,M4,M5
What impact would the post-closure pit lake have on ground water quantity?	48,107,358,M1p5,M2,M3,M4 ,M5
What would be the impact to spring fed and sand point wells within a 10 mile radius of the mine?	51,M2,M3,M4,M5
What would be the impact to groundwater in Blackfoot valley from proposed dewatering?	60,91,129,176,189,292, 333,348,355,M1p12, M2,M3,M4,M5

What would be the impact to ground water in the Landers Fork from proposed dewatering?	60,129,189,333,348,355,382, M1p12,M2,M3,M4,M5
What would be the impact to water wells within a ten mile radius of the mine (specifically in dry or drought years)?	152,M1p14,M2,M3,M4,M5
What impact would mine-related development have on ground water in the Helena valley and the bedrock aquifer surrounding the valley?	M1p22,M2,M3,M4,M5
What impact would the mine have on long-term recovery of groundwater?	M2p13,M2,M3,M4,M5
How would evaporation from the pit impact long-term water supplies?	M2p13,M2,M3,M4,M5
What impact would the mine have on the springs along Spring Creek?	M3p2,

IMPACT OF MINE OPERATIONS ON GROUND WATER QUALITY & CHARACTERISTICS

Issue	Comment Source
What would be the impact to ground water quality in the event of a leak in the leach pad liner or process system?	4,6,44,50,89,116,117,120, 127,137,181,210,218,220, 228,280,284,286,304,322, 335,344,347,355,356,365, M1p17,M2,M3,M4,M5
What impact would the mine have on ground water quality around the mine and downstream?	1,3,10A,21,32,35,42,46,56, 58,70,103,108,110,116, 117,125,126,127,131,134, 144,146,147,170,181,182, 209,233,265,269,293,298, 300,302,314,325,330,333, 342,350,352,356,360,377(p7) 382, M1,M2,M3,M4,M5
What impact would the mine operation have on ground water temperature?	71,80,221,330,360,382,M2, M3,M4,M5
What guarantees or contingencies would be in place to protect long-term ground water quality?	11,74,80,129,197,268,274,M 2,M3,M4,M5
How would pH, hardness (mg/l, CaCO3), etc. and the seasonal range of these ground water quality values be impacted by the operation (EPA)?	M3p6,377(9),M3,M4,M5
How would the water quality in Missoula's sole source aquifer be impacted by mine as a result of spills or leaks in the mining process?	14,28,103,229,358,376,M2,M 3,M4,M5
What would be the impact to the quality of water in Lincoln's private wells?	18,25,44,49,137,168,286, 367,M2,M3,M4,M5
How would runoff from snowmelt and rain impact groundwater?	33,210,M2,M3,M4,M5
What impact would the post-closure pit lake water have on groundwater quality?	11,48,58,95,107,168,271,382 M1p19,M2,M3,M4,M5
What impact would the water being pumped into the infiltration trenches have on ground water quality in the area?	48,382,M2,M3,M4,M5

What would be the impact to the quality of water in local wells?	50,63,176,286,330,367,M2,M3,M4,M5
What would be the impact to water quality in spring-fed and sand point wells within a 10-mile radius of the mine?	51,168,257,286,330, M1p19,M2,M3,M4,M5
What is the potential for cyanide, arsenic, nitrates, sulfites, lead, zinc, cadmium, mercury, and Sb entering the ground water?	60,117,277,286,344,382,M1, M1p10,M2,M3,M4,M5
How would ground water be impacted in the event of cyanide and other reagent leakage during operations and decommissioning?	33,89,176,344,382,M2,M3, M4,M5
What contingencies would be in place in the event of contaminated wells?	63,168,M2,M3,M4,M5
What impact would arsenic in stockpiled ore have on groundwater?	68,M2,M3,M4,M5
What impact would the mine have on ground water in the event of a major earthquake?	69,M2,M3,M4,M5
What impact would sulfides and arsenic in the ore body have on water quality?	125,M2,M3,M4,M5
What would be the impact to groundwater from increased septic activity up and down the valley?	221,M2,M3,M4,M5
Would water sprayed for road dust supression catalyze contaminant migration from the vadose zone to the ground water? How much water spray would infiltrate the surface?	277,M2,M3,M4,M5
What impact would the water treatment facility have on phosphorus contamination to ground water?	277,M2,M3,M4,M5
Would the sulfate coagulation treatment process increase sulfate concentrations in the treatment plant effluent?	277,M2,M3,M4,M5
How would the water quality of springs, seeps, and wetlands within the proposed mine area be impacted by mining activities?	277,M2,M3,M4,M5
What impact would land application have on metals and reagent contamination in ground water(USFS)?	323,382,M2,M3,M4,M5
What impact would the rock piles have on ground water quality?	324,M1p19,M2,M3,M4,M5
What impact would ammonium nitrate and sulfuric acid have on ground water quality?	365,M2,M3,M4,M5
How would the mine impact the container site on the old landfill? What would be SPJV's liability if changing groundwater, etc encroaches on the landfilled waste and becomes contaminated?	374,M2,M3,M4,M5
What impact would nitrates from blasting of waste rock, hydromulch, and stormwater runoff basins have on surface water quality?	382,M1,M2,M3,M4,M5
What impact would the mine have on the Spring Creek aquifer...specifically from cyanide and arsenic contamination?	154,M2,M3,M4,M5
Is each potential source of ground water impact going to have its own mixing zone?	M1,M2,M3,M4,M5
What impact would the relocation of Hwy 200 have on ground water quality?	382,M1p17,M2,M3,M4,M5

What would be the affects of the mixing zones in the Blackfoot and Landers Fork drainages?	382,M1p20,M2,M3,M4,M5
What would be the long-term impacts to ground water from heap decommissioning?	382,M1p20,M2,M3,M4,M5
What is the potential for mobilization of metals to ground water (elemental arsenic, antimony, cadmium, manganese and zinc), and what contingencies would be in place during operations and post-closure (plan should include leach pad and non-lined rock piles(EPA)?	377(p5),
What impact would sanitary sewage disposal from the mine have on groundwater (EPA)?	377(13),382,
How would seasonal variations impact the sites material balance and the mobilization of metals into ground water(EPA)?	377(P5),
Impact to ground water from mining near or in the sulfide-rich tertiary andesites at the bottom of the pit.	382
See cumulative section for additional issues in this discipline.	

IMPACT TO GROUND/SURFACE WATER CONNECTIONS FROM MINE ACTIVITIES

Issue	Comment Source
What effects would pit development have on the Blackfoot and Landers Fork aquifers and subsequently on the Blackfoot and Landers Fork Rivers?	2,95,117,129,155,168,220, 228,271,274,325,M2,M3, M4,M5
What impact would the mine have on the gaining/losing reaches of the Blackfoot and Landers Fork, where it resurfaces as spring fed lakes, and in the rivers themselves?	168,M2,M3,M4,M5
What assurances exist that the dewatering system would work as planned?	271,274,M2,M3,M4,M5
What would be the impacts to Hardscrabble Creek via transport through fractured bedrock? The bedrock ridge segregating the heap leach pads from the Hardscrabble Creek drainage does not necessarily constitute a hydrologic divide, particularly taking the east-west trending fault that crosses the pit excavation area.	277,M2,M3,M4,M5
Would land application discharge migrate to the water table and ultimately to surface water?	277,M2,M3,M4,M5

IMPACT OF MINE OPERATIONS ON GROUND WATER HYDROLOGY

Issue	Comment Source
How would ground water flow through the fractured bedrock be affected by anthropogenic alterations in ground-water chemistry with respect to flow path and residence time alterations?	277,M2,M3,M4,M5
How would bedrock springs, seeps, and wetlands be affected by dewatering?	277,M1p14,M2,M3,M4,M5

How would the redirection of bedrock ground water through alluvium prevent bedrock ground water constituents from reaching surface water, particularly during the times of the year when surface waters are gaining?	277,M2,M3,M4,M5
What would be the eventual ground water flux through the project area upon completion and reclamation of the mine? Please consider determining water flux through the waste rock piles, "neutralized" heap leach pads, backfilled pit material (if any), and other potential sources for contaminants from the site.	324,M2,M3,M4,M5
What effects would the mine have on the seasonal water table fluctuations, particularly in the winter?	M1p14,M2,M3,M4,M5
How long would it take the hydrologic system to stabilize after cessation of mining, and what impact would this stabilization have (i.e should it be allowed to stabilize naturally or should it be accelerated)?	M1p20,M2,M3,M4,M5
How would faults and fracture zones affect the existing ground water flow regimes as well as the modified operational ground water flow system (EPA)?	377(P6),
What impact does dewatering stress on the fractured, silicified portions of the tuff have on the alluvial ground water system (EPA)?	377(P6),
What impact would grout curtains have (if used) on mine pit lake filling and ground water system stabilization (EPA)?	377(p8)
What impact would geological structural features have on local groundwater flow and the pit dewatering scheme (EPA)?	377(p28)

IMPACT OF MINE OPERATIONS ON SURFACE WATER HYDROLOGY

Issue	Comment Source
How would the project impact stream flow regimes in the Blackfoot, Hardscrabble, and the Landers fork (especially during low flows)?	85,M2,M3,M4,M5
How would the mine impact stream substrate conditions in Hardscrabble, Blackfoot and the Landers Fork (especially during low flows)?	85,M2,M3,M4,M5
How would dewatering of the Blackfoot River from flow reversals or gradient increases be prevented during 1)initial startup when no infiltration is proposed, 2) the time period over which treatment options would be considered based on the terms of the non-degradation permit and the geochemistry of the ground water pumped from the dewatering wells prior to infiltration, and 3) low flow periods during infiltration?	277,M2,M3,M4,M5
How would the operation impact the flows and course of the Blackfoot and Landers Fork?	360,M2,M3,M4,M5
What impact would the mine have on the intergravel environments of the Blackfoot and Landers Fork?	M1p6,M2,M3,M4,M5
What impact would the mine have on fluvial geomorphology and the substrate character of the Blackfoot and Landers Fork.	M1p6,M2,M3,M4,M5

How would the mine affect the water balance of the hydrologic system including the Blackfoot and Landers Fork and their dilution potential?	M1p8,M1p13,M2,M3,M4,M5
What impact would highway realignment have on fluvial geomorphology and the substrate character of the Blackfoot and Landers Fork.	M1p31,M2,M3,M4,M5
What impact would highway realignment have on drainage characteristics?	M5p5,
What impact would the mine have on the gaining reaches of the Blackfoot?	M1p13,M2,M3,M4,M5
What impacts would the mine have on stream morphology?	71,85
What impact would the mine have on the gaining reach of the Landers Fork (near the current pump well)?	M1p13,M2,M3,M4,M5

IMPACT TO THE WATER MANAGEMENT SYSTEM

Issue	Comment Source
If it is assumed that rock pile construction minimizes seepage rates, can it also be assumed that the same construction increases runoff rates? And if so, what impact does this have on stormwater management?	277,M2,M3,M4,M5
What would be the effect if a backup of water within the cutoff well-dewatering well treatment plant-infiltration circuit occurs?	277,M2,M3,M4,M5
What is the uncertainty in the dewatering plan and how would changes in the dewatering plan impact the previous water budget analysis (EPA)?	377(P6),
How would the addition of wells "as necessary to modify the proposed system" impact the previously analyzed water budget analysis (EPA)?	377(p7)
What impact would snow removal and storage have on runoff?	M1p14,M2,M3,M4,M5

IMPACT OF CATASTROPHIC STORM EVENT ON BLACKFOOT AND LANDERS FORK

Issue	Comment Source
What impact would the mining operation have on the Blackfoot and Landers Fork Rivers if flooding and other significant hydrological events were to occur (i.e. river changing course, etc.)?	3,M1p14,M2,M3,M4,M5
How would high amounts of runoff from snowmelt be controlled?	33,164,M1p14,M2,M3,M4,M5
What would be the impact of more water production than the mine is designed to handle(USFS)?	323,M2,M3,M4,M5

GEOCHEMISTRY

IMPACT OF MINE-RELATED ACID ROCK DRAINAGE

Issue	Comment Source
What impact would ARD have on ground and surface water, wildlife, vegetation, and reclamation success?	10A,101,110,117,125,129, 137,144,146,170,209,220, 328,348,353,365,382,M2,M3, M4,M5
What is the short- and long-term probability that the mine would produce ARD?	11,129,209,274,323,324, 325,348,365,382, M2p10, M1p10&23&25,M2,M3,M4, M5
What is the contingency plan for ARD production and/or contaminant leakage occurring after closure and reclamation?	74,323,382,M1p11&23,M2, M3,M4,M5
How can avoidance of ARD generation be ensured?	80,110,144,146,209,382,M2, M3,M4,M5
How would the different geologic lithologies and the mining sequence impact ARD during and after mine operations? Is a material handling plan necessary?	M1p26&27,M2p10,M2,M3,M 4,M5

IMPACT OF THE MINE ON PIT WATER CHEMISTRY

Issue	Comment Source
What would be the impact to post closure pit water quality?	48,58,228,274,314,324, 325,333,353,365,382,M1p5, M2,M3,M4,M5
What would be the impact of all the chemical reagents used in the process?	117,210,328,353,M2,M3,M4, M5
How would the pit water chemistry change once pumping has been reduced or discontinued increasing the residence time of ground water within the bedrock flow?	277,M1p19,M2,M3,M4,M5
How would the accumulation of sediments on the pit floor affect pit water chemistry?	277,M2,M3,M4,M5
How would seasonal turnover of the pit water affect its chemistry?	277,M2,M3,M4,M5
What is the potential for the pit wall rock to affect the quality in the pit lake?	M1p27,M2,M3,M4,M5
What would be the potential effects of changing redox conditions as the mine pit walls become exposed during operations and during mine pit filling (EPA)?	377(p5)

IMPACT OF MINE DEVELOPMENT ON SURROUNDING WATER CHEMISTRY

Issue	Comment Source
How effective would final "neutralization" of the heap leach pads be? Cite examples of other projects of similar size that have successfully neutralized the facility.	324,348,382,M2,M3,M4,M5
As cutoff wells are pumped and the water is circulated from the alluvium back into the alluvial aquifer through the infiltration galleries, what are the affects of that process on the chemical concentrations in the aquifers?	382,M1p17,M2,M3,M4,M5
What impact would bordering minerals (outside the ore body or mined area) have on ground water quality (EPA)?	377(p28),382,
What impact would the different element concentrations that are found in various rock units have on water quality (EPA)?	377(p28),382,

SOILS AND RECLAMATION

IMPACTS ON RECLAMATION SUCCESS

Issue	Comment Source
How can sufficient reclamation be ensured?	3,27,39,48,60,74,89,99, 117,128, 152,158,161,166, 170,258,265,274,319,324, 330,350,355,M2,M3,M4,M5
What would be the impact to post-closure pit water quality since there is no outflow proposed? And how would that post-closure water quality impact land use and recreation?	50,125,152,221,274,M2,M3, M4,M5
How would the company meet the provisions in the State's constitution that requires mine land to be reclaimed? Specifically in regards to the pit.	116,152,333,343,M2,M3,M4, M5
What would be the impact of insufficient topsoil for reclamation?	221,M2,M3,M4,M5
How stable would final pit wall slopes be?	324,M2,M3,M4,M5
How would final pit slopes be vegetated and how would long-term survival of the vegetation be assured?	324,382,M2,M3,M4,M5
Is the reclamation plan adequate to prevent long-term water quality degradation?	M1p20,M2,M3,M4,M5
What impact would cyanide drift have on concurrent reclamation efforts?	M2p8,M2,M3,M4,M5
How would seeps or discharges from the french drain system impact ground and surface water after reclamation?	377(p24),

IMPACT TO SOIL RESOURCES

Issue	Comment Source
What impact would the mine have on topsoil...specifically with respect to cyanide,heavy metal, and chemical contamination?	166,210,280,302,324,M2,M3, M4,M5
How long can the topsoil be stockpiled and remain a viable source for native seeds?	324,M2,M3,M4,M5
How would disturbance of the topsoils affect human or environmental health(i.e heavy metals in soils, etc.)?	324,M2,M3,M4,M5

GEOLOGY/TOPOGRAPHY

IMPACT OF THE MINE ON SOIL STABILITY AND GEOLOGIC FEATURES

Issue	Comment Source
How would the mine impact erosion rates in the area?	26,M2,M3,M4,M5
How would the bedrock fracture network be affected by loading from heap leach pads and rock piles?	277
How would the bedrock fracture network be affected by pit excavation?	277

IMPACT OF THE MINE ON TOPOGRAPHIC FEATURES

Issue	Comment Source
What short- and long-term impacts would the mine have on the natural topography?	377(P23), M1p32&54,M2, M3,M4,M5

VEGETATION AND WETLANDS

IMPACT TO VEGETATION

Issue	Comment Source
Would vegetative changes that have occurred as a result of exploratory activities be evaluated in conjunction with actual operations?	86,324,M2,M3,M4,M5
What impact would current reclamation plans have on existing vegetation (i.e. proposed reclamation may be unrealistic in light of current vegetation patterns)? Would the local environment support the vegetative reclamation?	86,323,324,M1p34&35,M2, M3,M4,M5
What impact would the mine have on the migration and distribution of noxious weeds in the area?	114,189,M2,M3,M4,M5
What impact would the mine have on sensitive plant species?	325,352,M2,M3,M4,M5
How successful would revegetation be?	324,M2,M3,M4,M5

IMPACT TO WETLANDS AND WATERS OF THE U.S.

Issue	Comment Source
What impact would the mine and secondary developments have on streams and wetlands on site and down stream?	131,137,277,301,M2,M3,M4, M5
What impact would dewatering and associated drawdown have on wetlands and streams in and adjacent to the project site?	131,137,277,301,324, M1p13,M2,M3,M4,M5
How would wetlands and streams in the North Valley be impacted by the operation?	324,M2,M3,M4,M5
What mitigations are planned for wetland and stream disturbances?	324,M2,M3,M4,M5
How would functions and values of streams and wetlands be impacted by the mine?	M1p7,M2,M3,M4,M5
How would diesel emissions impact streams and wetlands?	M2p10,M2,M3,M4,M5
What impact would the mine have on the riparian habitat and wetlands adjacent to streams and wetlands?	M2p10,M3p1,M2,M4,M5
What impact would discharges incidental to mechanized land clearing or other excavation activities have on streams and wetlands (EPA)?	377(p27)

WILDLIFE

IMPACT OF MINE DEVELOPMENT ON WILDLIFE HEALTH AND POPULATION CHARACTERISTICS

Issue	Comment Source
What impact would blasting and noise have on wildlife useage of the area around the mine (displacement, shifts in migration patterns, etc.)?	1,326,333,377(p19), M1p56,M2,M3,M4,M5
What would be the direct, indirect, and cumulative impacts of mine development on black bear, grizzly bear, moose, deer, elk, bald eagles, peregrine falcon,water fowl, antelope, small mammals, and their habitats?	2,72,137,198,232,274,301, 312,324,352,377(p19),382, M1p38,M2,M3,M4,M5
How would the McDonald Meadows' elk herd be impacted?	26,201,324,M2,M3,M4,M5
What impact would contaminated surface and ground water have on wildlife that use the rivers and springs as a water source?	56,286,314,333,M1p24,M2, M3,M4,M5
What would be the direct, indirect, and cumulative impacts of mine development on listed, proposed, and category 1 threatened or endangered (see letter 364 for listing, USFWS) or state species of special concern.	85,364,M1p36&38, 377(p19),M2,M3,M4,M5
Are the proposed measures for prevention of mammal and bird entry to heap leach, pit lake, and waste rock areas going to be adequate?	86,M2,M3,M4,M5
What impact would the mine and associated population increases have on game populations (including illegal takes of game and non-game species)?	86,145,220,353,382,M1p41, M2,M3,M4,M5
What would be the foreseeable conflicts between the proposed post-mining land uses (timber mgmnt, dispersed recreation and wildlife).	86,M2,M3,M4,M5
What impact would a cyanide or other chemical spill have on wildlife near the project area and downstream?	116,314,330,M2,M3,M4,M5
What impact would the influx of people have on wildlife populations?	145,176,220,377(p18),382, M2,M3,M4,M5
What are the short- and long-term contingencies to protect wildlife, and what impact would they have?	152,162,M1p42,M2,M3,M4, M5
What impact would the mine's concomitant lights, noise, traffic, earthwork, effluent, ore and earth waste products, and long-term disturbance of the landscape have on grizzly bears?	312,324,377(p19),M2,M3, M4,M5
What impact would operational and post-closure pit water quality have on migratory birds, terrestrial wildlife, and endangered species?	333,m1p24,M2,M3,M4,M5
What impact would noxious gases/fumes have on wildlife in the area?	333,M2,M3,M4,M5
What impact would ponded water on site have on wildlife (migratory waterfowl, songbirds, bats, deer, elk, bears, etc), and how would these impacts be mitigated?	382,M2p9,M3p7,M2,M3,M4, M5
What impact would the mine have on golden eagles?	M5p4,M2,M3,M4,M5
What impact would increased access have on wildlife?	377(p19),

How would the solution ponds and leach pads impact birds, small mammals, and other wildlife?	377(p19),382,
Would residual salts on ore affect wildlife?	M5p4,M2,M3,M4,M5

See cumulative section for additional issues in this discipline.

IMPACT OF MINE DEVELOPMENT ON WILDLIFE HABITAT AND MIGRATION

Issue	Comment Source
What impact would the mine have on wildlife, habitat, and migration corridors?	10,111,147,176,298,330, 333,342,349,350,352,353, 367,382,M2,M3,M4,M5
What impact would the mine have on elk winter range carrying capacity within the project area? Can the impacts be mitigated?	86,M2,M3,M4,M5
How would the operation impact elk migration?	86,382,M2,M3,M4,M5
What impact would the mine have on elk spring calving season use?	86,M2,M3,M4,M5
What would be the impact of the mine on elk, moose, black bear, grizzly bear, mule deer, and white-tailed deer summer use of the project area?	86,M2,M3,M4,M5
Would the loss of wetlands negatively affect wildlife, including big game species and waterfowl currently using the area? (Include migration patterns)	86,137,277, 325,358,M2,M3,M4,M5
What would be the source and effects of disturbances on big game species and their use of the area during operations?	86,358,M2,M3,M4,M5
Would the loss of wetlands negatively effect amphibian species currently using the area?	86,323,M2,M3,M4,M5
How long would it take before reclamation is sufficient enough to provide adequate winter habitat for elk ? (Can timeframes for development of different community types be identified?)	86,M1p32,M2,M3,M4,M5
What impact would the mine have on wildlife habitat outside the project area (i.e. impact of more residential and business development in and around Lincoln, increased snowmobile activity, etc.) ?	86,M2,M3,M4,M5
What short- and long-term impacts would reclamation,the post-mining vegetation plan and recreation land use have on wildlife and habitat?	M1p28&29&32,M2,M3,M4, M5
Timing and usage of springs, streams and rivers. What impact would the mine have on the seasonal relationships between these sources and wildlife?	M1p40,M2,M3,M4,M5
What impact would blasting have on wildlife migration?	277,M2,M3,M4,M5

FISHERIES/AQUATICS

IMPACT OF MINE DEVELOPMENT ON FISH AND THEIR HABITATS

Issue	Comment Source
What impact would the mine have on habitat for bull and westslope cutthroat trout and what mitigations would be implemented?	2,71,72,101,108,118,128, 129,131,137,144,145,146,382 209,227,300,316,330,377p19, M1p36,M2p9,M3,M4, M5
What impact would the mine have on rainbow trout?	??
How would the mine, dewatering and changes in river flows, and upwellings impact fish and their habitat?	60,131,146,168,220,274, 333,350,358,367,382,M1p6, M2,M3,M4,M5
What impact would changes in water temperature caused by the mine have on habitat and fish in the Blackfoot and Landers Fork?	71,221,382,M2,M3,M4,M5
What is the relationship between the Landers Fork and other potential bull/cutthroat recovery areas in the Blackfoot River.	85,382,M2,M3,M4,M5
EIS should point out that bull trout were considered by the U.S. Fish and Wildlife Service to be warranted for listing , but were precluded due to other higher priorities(USFS).	323,M2,M3,M4,M5
What impact would the mine have on bull trout using the Blackfoot as a migratory route for use of Monture Creek, the North Fork of the Blackfoot, and possibly Copper Creek (USFS)?	323,382,M2,M3,M4,M5
How would fish be impacted by mixing zones?	M1p40,M2,M3,M4,M5
How would the mine impact the biological character of the Landers Fork and Blackfoot? What sets these fisheries aside from those in other basins?	M1p40,M2,M3,M4,M5
What impact would the mine have on bull trout and their young that live in the dewatered gravels during the dry periods?	382,M4p12,

IMPACT OF MINE DEVELOPMENT ON FISH HEALTH, POPULATION, AND DISTRIBUTION

Issue	Comment Source
What impact would the mine, including the dewatering and infiltration system, have on fisheries, including bull trout and cutthroat trout?	10A,11,26,60,71,108,269, 274,298,300,301,324,332,382 333,348,352,M2,M3,M4,M5
What impact would the influx of people have on fish populations?	71,72,85,101,289,353,382, M1p41,M2,M3,M4,M5
What is the impact to the value of the Upper Blackfoot as a bull trout gene pool in light of the fact that it is a separate population.	85,M2,M3,M4,M5
How would the mine affect bull trout and westslope cutthroat trout spawning, incubation, rearing, and migration in the Blackfoot, Landers Fork, Arrastra, Copper Creek, and Poorman Creek.	85,125,325,382,M1p6, M1p12,M2,M3,M4,M5

How would the lack of hybridizing brook trout in the Copper and Landers Fork system be factored into accessing the value and importance of the Blackfoot headwater area to the long term survival of bull trout (DFW&P -- Don Peters)?	85,M2,M3,M4,M5
What would be the shock related impacts of blasting upon incubating and rearing bull trout in the Landers Fork...especially in the up-welling area and around the Highway 200 bridge?	85,274,377(p22),M1p56, M2,M3,M4,M5
What impact would the mine have on bioaccumulation of toxins in fish?	117,145,220,M2,M3,M4,M5
How would the mine affect the entire aquatic food chain, including the influences of nutrition, reproductive cycles, and the remainder of the biological food chain.	117,220,316,382,M2,M3,M4, M5
What impact would the mine have on fishery recovery efforts in the upper Blackfoot basin, specifically bull trout?	127,135,289,323,353,382, M2,M3,M4,M5
What impact would increased siltation have on fish in the Blackfoot and Landers Fork?	145,220,382,M2,M3,M4,M5
What impact would ARD and nutrients have on fish in the Blackfoot and Landers Fork?	220,382,M2,M3,M4,M5
What impact does contamination emanating from Sandbar Creek in the Wouldow Creek drainage have on the populations of fish in those two drainages, and ultimately on fish populations in the Blackfoot (USFS)?	323,M2,M3,M4,M5
What impact would arsenic from the mine have on fish in the Blackfoot and Landers Fork?	330,M2,M3,M4,M5
What impact would reagent and/or metals leakage into the Blackfoot and Landers fork have on fish?	382,M1p9,M2,M3,M4,M5
What impact has historic degradation from mining had on baseline fish populations(USFS)?	323,M2,M3,M4,M5
What impact would elevated arsenic have on the potential for fisheries in the pit?	125,M2,M3,M4,M5

IMPACT OF MINE ON AQUATIC LIFE

Issue	Comment Source
What impact would the mine and its chemical reagents and explosives used in mining have on aquatic life in the Blackfoot and Landers Fork?	14,269,277,M2,M3,M4,M5
How would dewatering, siltation, and changes in river flows impact aquatic life and associated habitat?	60,145,209,377(p17),382, M2, M3,M4,M5
What would be the impact to aquatic life in the event of leakage of cyanide, nitrates, ammonia, or other reagents from the process into the ground and surface water?	70,168,209,220,275,277, 316,382,M2,M3,M4,M5
How would the mine impact the functions and relationships of the biota with the environment down to microsite conditions both temporally and spatially (DFW&P -- Don Peters)?	85,316,M2,M3,M4,M5

What impact would the mine dewatering plans and the use of cyanide have on the hydrologic biosphere (hyporheic zone) and the groundwater organisms? (Concern was based on a publication entitled: "Canaries of the biosphere" pp. 12-13 Montanan Fall 1995 Vol. 13 No. 1)	275,382,M2,M3,M4,M5
What impact would nitrate induced increases in surface water algae production haveon downstream aquatic organisms and fish?	200 ????,316,382,M2, M3,M4, M5
How would potential changes in pH, hardness (mg/l, CaCO3), etc. and the seasonal range of these water quality values impact aquatic life (EPA)?	377(9),

CULTURAL RESOURCES

IMPACT TO ARCHAEOLOGICAL VALUE OF THE REGION

Issue	Comment Source
What impact would the mine have on known cultural/archaeological resources in the area?	286,M2,M3,M4,M5
What impact would the mine have on the Native American tradition and culture?	286,M2,M3,M4,M5
What impact would the mine have on the Cummings Cabin south of the project (USFS)?	323,M1p53,M2,M3,M4,M5
What impact would campground crowding have on archaeological deposits throughout the campground sites(USFS)?	323,M2,M3,M4,M5
What impact would the mine have on Native American archaeological sites and traditional cultural practices areas?	323,M2,M3,M4,M5
What impact would the mine have on the Lewis and Clark Trail?	M1p53,M2,M3,M4,M5
What impact would the mine have on the old Lincoln road and the Pokolara Trail (sp???)?	M1p53,M2,M3,M4,M5

NOISE AND AIR QUALITY

IMPACT OF THE MINE ON AIR QUALITY

Issue	Comment Source
What impact would the mine have on air quality in the Blackfoot and Landers Fork region (emissions, particulate matter, etc.)?	6,57,106,152,198,210,280, 324,355,360,M1p43,M2,M3, M4,M5
What impact would the mine have on dust generation in the valley?	82,106,324,M2,M3,M4,M5
How would construction impact air quality (i.e. dust, emissions, etc.)?	29,152,M2,M3,M4,M5

What impact would increased traffic have on air quality in Lincoln and along Highway 200 (quantify into CO and PM-10 emissions - EPA)?	60,106,324,377(p14),M2, M3,M4,M5
What impact would cyanide drift or overspray have on local wildlife and citizens?	152,M2,M3,M4,M5
Would the mine produce acid rain/fog from the cyanide and open pit?	152,M2,M3,M4,M5
What impact would emissions from the wast rock piles, soil stockpiles, roads, pit areas and other exposed areas have on air quality?	324,M2,M3,M4,M5
What impact would the mine have on atmospheric conditions (fog, toxic fog, etc)?	M1p24&44&50,M2,M3,M4, M5
How does Prevention of Significant Deterioration (PSD) apply to this project (would air emissions from all stationary sources exceed the 250 ton/year annual limit) (EPA)?	377(p14),M1p44,M2,M3, M4,M5
What impact would windblown fumes have on passing motorists?	M3p1,
Does the project meet the new source performance standards (40 CFR Part 40.380-386)(EPA)?	377(p14),
What impact would the crusher, rock piles and the open pit have on PM-10 levels (EPA)?	377(p14),
What impact would the mine have on the nearby Class I area (Screening Visibility Model (VISCREEN))(EPA)?	377(p15),
Would there be any toxic/noxious gases produced on site, and what would their impact be?	333,M2,M3,M4,M5

See cumulative section for additional issues in this discipline.

IMPACT OF MINE-RELATED NOISE ON SURROUNDING AREA

Issue	Comment Source
What impact would noise from the mine have on local residents?	21,57,82,189,198,218,280, 324,M2,M3,M4,M5
What impact would noise from blasting have on retreats in the area that depend on tranquility for their existence?	17,M2,M3,M4,M5
What impact would drilling, blasting, and equipment operation have on the region?	29,32,189,258,263,269, 280,324,355,M1p56,M2,M3, M4,M5
What impact would blasting, truck, and crusher noise have on wildlife?	377(p22),
What impact would increased traffic have on noise in Lincoln and along Highway 200?	60,M2,M3,M4,M5
What impact would truck traffic over Hwy 279 have on noise levels?	372,M2,M3,M4,M5
What impact would noise have on recreational experience in the Bob marshall Wilderness?	377(p22),

VISUALS/AESTHETICS

IMPACT TO VISUAL CHARACTER OF THE AREA

Issue	Comment Source
How would the open pit effect short- and long-term visual enjoyment of the area?	29,82,258,294,301,349,M2,M3,M4,M5
How would the operation impact scenic values in the Blackfoot Valley including Lincoln?	57,60,185,M2,M3,M4,M5
What would be the short- and long-term impacts to the landscape? This viewshed analysis should include views from Hwy 200, Scapegoat Wilderness, Flescher and Stemple Passes, and the area between these passes.	72,95,117,131,144,161, 185,227,232,264,280,294, 324,332,346,349,377(p23), M1p32&34&54,M2,M3,M4, M5
What impact would the mine have on the visual quality of the area?	294,301,355,M1p55,M2,M3, M4,M5
How would the mine impact the foreground viewing attention of Forest visitors approaching the route to the Scapegoat Wilderness and the Copper Creek area (USFS)?	323,M2,M3,M4,M5
How would the heap leach and rock pile facilities, structures, and transmission lines impact the foreground and middleground viewing distance zones? And what mitigations would be implemented (USFS)?	323,M2,M3,M4,M5
What impact would the mine's lights have on the area, including the Bob Marshall and Scapegoat Wildernesses?	324,M2,M5p14,
What impact would the mine have on visuals along the Continental Divide Trail?	M2p57,M2,M3,M4,M5
What impact would the mine have on visuals from the Bob Marshall and Scapegoat Wildernesses?	M5p9,M2,M3,M4

RECREATION/WILDERNESS

IMPACT OF MINE DEVELOPMENT ON RECREATIONAL OPPORTUNITES

Issue	Comment Source
What impact would the mining operation have on short- and long-term recreational opportunities in the immediate area?	2,58,117,131,218,280,294,323,325,326,333,348,350,382, M2,M3,M4,M5
How would Aspen Grove Campground be impacted by the mine? And how would the mine mitigate any losses of use? How is 4(f) considered?	18,29,60,125,280,323,333, 338, 382,M1p50,M2,M3,M4,
How would hunting opportunities be impacted by mine development?	29,58,218,326,333,M2,M3,M4,M5
What would be the short- and long-term impacts to tourism as a result of mine development?	58,117,323,333,M2,M3,M4, M5

What impact would the influx of people have on fishing pressures?	85,218,333,M2,M3,M4,M5
What impact would cyanide leakage into the river have on recreational opportunities on the Blackfoot?	116,117,131,158,229,294,M2 , M3,M4,M5M3,M4,M5
What impact would the mine have on recreational use and the businesses that serve it? Specifically what would be the impacts on snowmobiling, outfitters, guides, hunting and fishing?	198,325,333,M1p51,M2,M3, M4,M5
What would be the impact of decreased tourism and recreation caused by the mine on the environment (specifically, pressures in the Bob Marshall and on the Blackfoot)?	221,301,M2,M3,M4,M5
What impact would the mine have on existing trails, on and off-site? And what contingencies would be in place to mitigate the impacts?	313,M2,M3,M4,M5
How would the mine conflict with people's recreational activities (i.e. noise from blasting, equipment, highway traffic, scenery changes, relocation of the highway, relocation of campground, etc.) (USFS)?	323,M1p51,M2,M3,M4,M5
How would the influx of people associated with the mine impact the use rates of the campgrounds in the area (USFS)?	323,M1p51,M2,M3,M4,M5
How would blasting impact the quality of the recreational experience at the Cummings Cabin and its surrounds(USFS)?	323,M1p50,M2,M3,M4,M5
What impact would the mine have on developed and dispersed recreation?	M1p50,M2,M3,M4,M5
How would the mine impact angler use of the Blackfoot and Landers Fork (referenced survey says anglers use the area because of the visual quality)?	M1p55,M2,M3,M4,M5
How would future generations on the Blackfoot be impacted by the mine?	M2p5,M2,M3,M4,M5
What is the value of the lake as a true recreational resource?	M2p5,M2,M3,M4,M5
What impact would the mine and dewatering have on boat launches on the Blackfoot?	M2p16,M2,M3,M4,M5
How would the mine and the influx of people impact the levels of snowmobiling, hunting, fishing and cross-country skiing, and what would the impact of this increase be on the environment?	M2p17,M2,M3,M4,M5
What impact would the mine have on spring fishing? This area is the first to clear in the spring and is a popular destination because of that reason.	M3p2
What impact would the mine have on gathering in the area? Specifically mushrooms?	M3p2

IMPACT OF MINE DEVELOPMENT ON ILLEGAL RECREATIONAL ACTIVITIES

Issue	Comment Source
What short- and long-term impact would the mine have on illegal harvests of bull trout?	85,M2,M3,M4,M5
What short- and long-term impacts would the mine have on illegal takes of big game, fur bearers, etc.?	

IMPACT OF MINE DEVELOPMENT ON WILDERNESS

Issue	Comment Source
What impact would the mine have on the Bob Marshall and Scapegoat Wilderness ecosystems?	147,227,333,M2,M3,M4,M5
What impact would blasting and noise have on the wilderness areas?	326,333,382,M1p56,M2,M3, M4,M5

SOCIOECONOMICS

IMPACT TO EXISTING TAX STRUCTURE

Issue	Comment Source
What impact would the mine have on local taxes?	3,60,161,173,198,218,280, M1p49,M2,M3,M4,M5
What impact would the mine have on Montana taxpayers?	113,117,178,198,218,280, 282,M2,M3,M4,M5
What impact would the mine have on tax revenues at the local, state, and federal levels?	118,161,173,178,179,180, 207,219,M2,M3,M4,M5
What impact would the mine have on taxes in Ovando?	120,M2,M3,M4,M5
What is the difference in impacts to the school trust if the royalty is calculated on a net smelter or a net proceeds basis?	221,M2,M3,M4,M5
What impact would the mine have on the tax burdens for retired people living in the area?	225,M3p6,M2,M3,M4,M5
What tax burdens would be left to the people if the mine closes and leaves reclamation up to the taxpayers?	280,M2,M3,M4,M5
What would be the impact of the mine on the school trust, Montana Tech, and the quality of education it provides?	354,M2,M3,M4,M5
How would relocation of Hwy 200 impact state taxpayers?	375,M2,M3,M4,M5
How would the mine impact landholders that carry a majority of the tax burden in the area?	M2p6,M2,M3,M4,M5
What would be the long-term impacts to Montana taxpayers if the State is burdened with the clean-up?	222,M2,M3,M4,M5
How would tax breaks for the mine impact school taxes?	M5p2,

IMPACT OF SHORT TERM ECONOMIC GAIN VS. LONG TERM ECONOMIC SUSTAINABILITY

Issue	Comment Source
What would be the short and long term impacts to the economy (direct and indirect)?	3,10a, 50, 64, 80, 88, 89, 90,92,95,109,111,113,116,118,129,131,137,144,145,154a, 159, 161, 176, 179, 218,266,286,288,291,331,333, 342, M3p3,M2,M4,M5,
What would be the economic impact to guides and outfitters who use the Blackfoot River for their primary income?	10A,92,116,168,191,382,M2, M3,M4,M5
What would be the socioeconomic impacts to the Missoula area?	64,292,299,M2,M3,M4,M5
How would the mine impact the number of jobs created because of the beauty of the area?	30,31,50,137,264,323,M2,M3 ,M4,M5
How would the long-term existing sustainable economy that is based on a clean river and plenty of undisturbed recreational opportunities be impacted by the mine (i.e. sporting goods, fishing outfitters, motels and restaurants, float guides, license fees, etc.)? Quantify amenity values.	65,80,85,92,95,109,111, 116,118,127,137,145,148, 158,168,185,187,191,194, 220,223,231,233,258,261, 265,266,267,282,288,289, 303,304,316,323,340,344, 349,352,358,360,367,382, M2,M3,M4p1,M5,
What impact does the mine's wage rate have on local businesses (i.e. What kind of help can they get at minimum wage when the mine is paying such high wages)?	68,92,178,223,232,352,M2,M 3,M4,M5
What would be the economic impacts to tourism, recreational users and businesses reliant upon the river and tourism in the event of a major spill into the Blackfoot River?	85,116,127,168,229,292,382, 325,326,333,M2,M3,M4,M5
What impact would the mine have on local and regional businesses that rely on the mining industry for their existence?	179,292,354,361,M2,M3,M4, M5
How would the management of the post mining land use (pit lake) influence its economic and environmental values?	217,324,M2,M3,M4,M5
What would be the economic impacts of the mine when considering the value of beauty, fish, and the sense of place?	M4p19,
What would be the economic impact of not mining the site, including use and non-use values into the future, and including current and potential recreational, commercial, ammenity and biodiversity values?	231,352,361,M2,M3,M4,M5
What impact would the mine have on tourism, recreational users and businesses reliant upon the river and tourism?	200???,333,354,382,M2,M3, M4,M5
What would be the long-term impact in the event that the primary and secondary labor force buys homes on 30-year terms, businesses get long-term operating loans, but the mine is closed after 15 years?	263,M2,M3,M4,M5
How would a loss of scenic value impact the tourism market edge that diversifies the economy in Lincoln?	323,M2,M3,M4,M5

IMPACT OF MINE DEVELOPMENT ON JOB RATES AND THE ECONOMY

Issue	Comment Source
What would be the short- and long-term impact on the local employment and economy (Boom/Bust)(+-)?	4,21,34,48,54,66,67,83, 113,118,119,131,134,138, 143,159,160,173,178,180, 189,204,205,207,208,217, 219,228,232,254,255,256, 263,289,324,352,354,361, M2,M3,M4,M5
What would be the short- and long-term impact on regional and state employment and economy (+-)?	9,34,47,62,67,83,113,118, 119,134,138,143,159,160, 162,173,178,179,180,188, 205,207,208,211,219,255, 256,337,352,354,361,M2, M3,M4,M5
What is the impact of the mine on the State's ability to maintain large tracts of Wilderness?	13,M2,M3,M4,M5
What would be the "true" impact to Montana's employment level (i.e. What if mine doesn't hire from Montana)	27,48,91,96,201,223,230, 267,286,288,326,359,381, M2,M3,M4,M5
What would be the impact to the local non-mine workforce?	68,M2,M3,M4,M5
How can Montanans be ensured that the company would hire an equitable number of Montanans? Would they train?	106,223,230,267,286,288, 326,359,381,M2,M3,M4,M5
What would be the impact to the economy if gold prices dropped to a level that warranted closure of the mine?	184,257,326,M2,M3,M4,M5
How would the mine impact cost of living in Lincoln and the surrounding area, including smaller communities in the region?	218,333,335,M2,M3,M4,M5
A cost-benefit analysis should be prepared to analyze the distribution of economic benefits and costs. It should include the economic value of the agricultural, timber, and recreational sectors of the affected area, as well as costs associated with the potential of destruction of critical habitat of grizzly bear and bull trout. (See letter 286 for sources of data)	274,286,331,M2,M3,M4,M5
What are the impacts of, and contingencies for, prevention of a boom/bust cycle?	324,333,381,M2,M3,M4,M5
What would be the impact if the mine were to go bankrupt?	333,M2,M3,M4,M5
What impact would construction of the relocated Hwy 200 have on the local economy?	374,M2,M3,M4,M5
How would the economy be impacted if the process doesn't work as planned?	M1p32,M2,M3,M4,M5
What impact would the mine have on local teenagers and their futures (i.e. scholarships, hiring, training program for local teens, diversity, etc.)?	M2p5,M2,M3,M4,M5
What impacts would a union have on local workforce during mining?	M2p5,M2,M3,M4,M5
Would workers be retrained after mine closes to reduce the economic and social impacts?	M4p3,

IMPACT OF MINE DEVELOPMENT ON PROPERTY VALUES

Issue	Comment Source
What short- and long-term impacts would the mine have on property values in the immediate area of the mine and further from the mine?	6,60,117,130,176,189,198, 263,344,M1p50,M2,M3,M4, M5
What would be the long-term impacts to property values for recreation?	24,116,117,198,301,333, 349,358,M2,M3,M4,M5
What impact would degraded groundwater as a result of the mine have on property values?	60,117,M2,M3,M4,M5
What impact would the mine have on property values downstream?	120,344,M2,M3,M4,M5
How would the residents of Elk Trail Park be compensated if property values drop (petition was signed to encourage a buy-out)?	130,M2,M3,M4,M5
What impact would the mine have on land values and the resulting impact to land uses (ie. family ranch to subdivision)?	M2p3,M2,M3,M4,M5

IMPACT OF MINE DEVELOPMENT ON HOUSING AND SCHOOLS

Issue	Comment Source
How would the mine impact housing in Cascade County?	22,106,M2,M3,M4,M5
How would the mine and secondary opportunities impact local and regional school districts (see letter #374 from L&C County for details)?	27,53,60,72,126,189,192, 257,263,269,280,288,294, 326,374,M2,M3,M4,M5
What would be the key housing areas for mine employees ? How would the mine keep all of the miners from residing in Lincoln?	53,72,126,181,198,280, 296,365,M2,M3,M4,M5
Impact of mine-related taxes on schools and the State?	67,288,M2,M3,M4,M5
What impact would new residents have on housing and schools in Ovando and other small communities in the region?	120,136,181,335,355,M2,M3, M4,M5
What impact would the mine have on housing and schools in Helena?	172,181,192,198,374,M2,M3, M4,M5
What impact would the mine have on housing in Lincoln, including temporary?	181,189,198,280,296,319, 326,374,M2,M3,M4,M5
How would the mine employment force be distributed throughout Lewis and Clark County (see letter #374 from L&C County for details)?	192,269,286,374,M1p48,M2, M3,M4,M5
How would the availability of existing housing impact distribution of inmigrating population (see letter #374 from L&C County for details)?	192,374,M2,M3,M4,M5
What impact would the royalty have on the state school system?	255,M2,M3,M4,M5
What impact would the mine have on the numbers of transient persons seeking employment and how would their respective need for housing impact Forest Service campgrounds and lands, including the Cummungs Cabin(USFS)?	323,M2,M3,M4,M5

What affect would in-migrating students have on the class size/teacher ratio required for accreditation by the Montana Board of Public Education (Helena and other schools in the region)?	341,374,M2,M3,M4,M5
How much overflow could Helena public schools expect from rural schools that have exceeded their capacity as a result of in-migrating population?	341,M2,M3,M4,M5
Would Helena schools qualify for tax base sharing? What percent of property tax revenues paid by the mine would School District No. 1 receive?	341,M2,M3,M4,M5
What would the impacts to schools be in terms of per capita costs? How much of this would be offset by state direct aid?	341,M2,M3,M4,M5
How would the mine affect the demand for housing and therefore the housing market (see letter #374 from L&C County for details)?	374,M2,M3,M4,M5
What impact would the mine have on school bussing needs and routes (see letter #374 from L&C County for details)?	374,M2,M3,M4,M5
What impact would the mine have on development of rural subdivisions?	M1p57,M2,M3,M4,M5
How does the limited availability of land impact development in and around Lincoln?	M5p1,

IMPACT OF MINE DEVELOPMENT ON LINCOLN

Issue	Comment Source
How many mine employees would live in Lincoln and what would the impacts be?	27,54,72,M2,M3,M4,M5
What would be the impacts to crime rates in the Lincoln area as a result of job seekers not finding work, but hanging around Lincoln?	68,126,296,M2,M3,M4,M5
What would be the short- and long-term impacts to local and visiting recreationists and tourism?	85,M2,M3,M4,M5
What would be the economic impact to surrounding communities and businesses if fishery resources are negatively impacted?	85,M2,M3,M4,M5

IMPACT OF MINE DEVELOPMENT ON INFRASTRUCTURE AND SERVICES

Issue	Comment Source
How would roads, schools, and other infrastructure in Missoula County be impacted from mine related and secondary employees?	28,53,198,M2,M3,M4,M5
What would be the impact on the region's infrastructure and services after mine closure?	48,72,106,109,280,286, 324,M1p45,M2,M3,M4,M5
Impact of mine-related taxes on infrastructure?	67,M2,M3,M4,M5

How would Lincoln's and surrounding area's emergency services be affected, including medical and fire emergency response teams?	72, 106,192,196,221,257, 280,294,324,374,M1p46,M2, M3,M4,M5
How would infrastructure and services in and around Lincoln be impacted?	106,168,189,192,198,221, 225,230,257,263,280,294, 324,326,333,358,M2,M3,M4, M5
How would law enforcement in Lincoln and the surrounding area be impacted?	106,168,288,324,359,M2,M3, M4,M5
What impact would new residents have on infrastructure and services in Ovando?	120,136,198,355,M2,M3,M4, M5
What impact would the mine have on Helena's infrastructure and services?	172,192,198,225,230,M2,M3, M4,M5
What impact would the mine have on local law enforcement agencies and their ability to provide adequate services county-wide (see letter #374 from L&C County for details)?	192,198,200,221,359,374, M1p46,M2,M3,M4,M5
How would the mine impact local ambulance service and the following: crew training and certification, number of responders, upkeep of equipment, additional equipment (ambulance), specialized equipment for mining accidents, liability and insurance to operate on mine property?	195,200,221,374,M1p50,M2, M3,M4,M5
How would the in-migration of workers and their families impact the parks and recreation base in Lincoln, Helena and other communities (see letter #374 from L&C County for details)?	374,M1p50,M2,M3,M4,M5
How would the in-migration of workers and their families impact public library services (see letter #374 from L&C County for details)?	374,M1p50,M2,M3,M4,M5
What impact would the mine have on the waste transfer station east of Lincoln?	M1p47,M2,M3,M4,M5M3
What impact would the mine have on health costs?	M4p2
What would be the direct and indirect impacts to Lincoln's wastewater treatment facility(EPA)?	377(p14),

IMPACT OF MINE DEVELOPMENT ON SOCIAL CONDITIONS

Issue	Comment Source
What impact would the 390 workers have on the ethical behavior and overall social health of Lincoln and the area?	69,109,140,198,269,333, 359,M2,M3,M4,M5,M4p1,
What impact would the mine have on crime rates in and around Lincoln during construction and operation?	72, 106,126,140,198,269, 326,352,359,360,374,M2,M3, M4,M5
How would the mine impact alcohol and drug abuse in Lincoln and surrounding area?	126,360,M2,M3,M4,M5
What impact would the mine have on the overall social atmosphere of Lincoln?	208,218,M2,M3,M4,M5

What impact would the mine have on the cohesiveness of the community? Would a polarity develop?	218,296,M2p5,M2,M3,M4,M5
How would the mine impact violence toward women in and around Lincoln?	352,M2,M3,M4,M5

IMPACTS TO GOVERNMENTAL RESOURCES

Issue	Comment Source
What would be the impact on state fish and wildlife enforcement personnel (i.e. Compliance with fish and wildlife regulations, monitoring and regulation of harvests for big game, fur bearers, upland game bird, water fowl and fish). How much would it cost DFWP in operations and manpower?	85,86,M1p42&47,M2,M3,M4,M5
What would be the impact to fish management personnel and program additions to evaluate increased usage impacts, develop management strategies and evaluate strategies?	85,M1p42,M2,M3,M4,M5
What would be the impact to information and education personnel and program enhancements to assist in educational efforts necessary to offset impacts?	85,M2,M3,M4,M5
How would the mine impact Lewis and Clark County's ability to maintain highways, including flesher and stemple passes, for 24-hour winter travel (see letter #374 from L&C County for details)?	374,M1p49,M2,M3,M4,M5
What impact would the mine have on Lewis and Clark County's ability to manage increases in site evaluations, sanitary facility compliance and personnel, public health responsibilities such as primary care facilities and immunization programs, women, infant, and children programs, and other compliance requirements.	192,200,374,M1p50,M2,M3,M4,M5
What impact would the mine have on the Lincoln Solid Waste District? How much waste would be produced from the mine and the additional people in the area and how would the cost of collecting, transferring and disposing of solid waste from the mine and employee residents be impacted?	192,200,374,M1p47,M2,M3,M4,M5
What would be the impact from the mine to the Lewis and Clark Planning Department? Specifically, how would the mine effect the Department's ability to adequately provide subdivision reviews and other planning needs of the county? Also the ability of the planning staff to adequately review the EIS and Hard Rock Mining Impact Plan (see letter #374 from L&C County for details).	192,200,374,M2,M3,M4,M5
What would the impact to the Lincoln Fire Protection District, ISO ratings and operating costs to the Department.	196,200,M1p46,M2,M3,M4,M5
What impact would the mine have on local, state, and federal agencies to provide adequate services?	286,M2,M3,M4,M5
How would reduced income from rental of the Cummings Cabin impact the Forest Service's ability to upkeep the site(USFS)? And how would this lack of upkeep impact the recreational experience of the site?	323,M2,M3,M4,M5

How would impacts to wildlife impact the Forest Service's management of habitat, including species listed in Section 2.9 of the Plan of Operations and the following: amphibians and reptiles, including any listed on Montana's list of Species of Special Concern, lynx, fisher and wolvering (USFS)?	323,M2,M3,M4,M5
How would changes in human populations in the Lincoln area affect the Forest Service's ability to manage wildlife habitat on adjacent public land? Specific examples include maintaining wildlife security areas, road and area closure violations, hunter opportunities, and development in migration corridors(USFS).	323,M2,M3,M4,M5
How would the mine and associated impacts affect the Lewis and Clark County judicial system (see letter #374 from L&C County for details)?	374,M2,M3,M4,M5
How would fiscal impacts to the Sheriff's Department be mitigated (see letter #374 from L&C County for details)?	374,M1p46,M2,M3,M4,M5
How would the mine affect demands for water protection and air quality protection functions of the County from additional residential, commercial, and mine development (see letter #374 from L&C County for details)?	374,M2,M3,M4,M5
How would Lewis and Clark County's animal control office and staff be impacted (see letter #374 from L&C County for details)?	374,M1p47,M2,M3,M4,M5
How would the mine impact the new county recycling program?	374,M1p47,M2,M3,M4,M5
How would the mine impact the county' s ability to manage the Lincoln Sewer District? Specifically, availability of land for additional septage disposal and spray irrigation, staffing for record keeping, and system maintenance. (see letter #374 from L&C County for details)?	374,M1p15,M2,M3,M4,M5
How would the mine impact the following fire departments' abilities to respond,: Lincoln Volunteer Fire Dept., West Helena Valley Volunteer Fire Department, Canyon Creek Volunteer Fire Department, and Lewis and Clark Volunteer Fire Department (see letter #374 from L&C County for details)?	374,M1p46,M2,M3,M4,M5
How would the mine impact mutual aid agreements with State Lands and Forest Service?	M1p46,M2,M3,M4,M5

LAND USE/ACCESS

IMPACT TO LAND USE

Issue	Comment Source
How would contamination from the mine impact downstream land uses, including agriculture?	116,117,118,128,168,258, 286,M2,M3,M4,M5
How would increased nitrates in the water from the mine impact downstream agricultural uses?	168,M2,M3,M4,M5
How would the mine affect developments in the area (specifically, hastily developed or unplanned development)?	269,319,365,M2,M3,M4,M5

How would the post-mining pit water quality impact the post-mining land use?	M1p23,M2,M3,M4,M5
Would the land support the proposed post-mine land use (including pit wall stability, etc.)?	M1p29&30,M2,M3,M4,M5
How would post-mining land use relate to future off-site land use?	M1p32,M2,M3,M4,M5
What impact would the mine have on historical and recreational ranching?	M2p2
How would the value of the site change between current conditions and post-mining land use -- specifically, how the lake would be used, including access issues, habitat issues, and recreational issue?	377(p23),
What would be the post mining land habitat/uses? What are the limitations of the post-mining land use and how does it compare with existing land uses?	377(P24),

IMPACT TO PUBLIC LAND ACCESS

Issue	Comment Source
How would the project impact access to state land?	29,M2,M3,M4,M5
How would the mine impact access to currently protected, remote habitat?	353,362,382,M2,M3,M4,M5
How would the mine impact Wilderness access and the public's use thereof?	362,382,M2,M3,M4,M5
How would the mine impact access on Copper Creek Road?	382,M1p52,M2,M3,M4,M5
How would access to the post mining pit be managed?	M1p52,M2,M3,M4,M5

TRANSPORTATION

IMPACT TO HIGHWAY INTEGRITY

Issue	Comment Source
What would be the impacts to roads in Cascade County as a result of the mine?	22
What would be the impacts to the integrity of Highways 200 and 279 as a result of the mine?	18,25,72,176,198,286,372, M1p57,M2,M3,M4,M5
What impact would the mine have on Hogum Creek Road and the bridge over the Blackfoot?	152,M2,M3,M4,M5
What impact would the mine have on Copper Creek Road?	189,374,M2,M3,M4,M5

What impact would the mine have on Lewis and Clark County's ability to maintain Highway 279, its bridges, and other county roads in the affected area (see letter #374 from L&C County for details)?	192,374,M2,M3,M4,M5
What impact would the mine and associated traffic have on integrity of county roads and bridges (see letter #374 from L&C County for details)?	374,M1p49,M2,M3,M4,M5
What impact would the mine have on the streets and rights-of-ways in Lincoln and their maintenance (see letter #374 from L&C County for details)?	374,M2,M3,M4,M5
How would the mine related traffic impact the county's equipment supply and storage (see letter #374 from L&C County for details)?	374,M1p57,M2,M3,M4,M5
What impact would the following have on MT 200, S-279, and Forest Service Route 330 (Copper Creek Road): Heavy vehicles, construction materials transport, construction crew transport, operational impacts on transportation, level-of-service of the roadways (including consideration of alternative transport methods for mine employees), and future traffic (See letter 375 - MDT for details)?	375,M2,M3,M4,M5

IMPACT TO TRAFFIC FLOW AND SAFETY

Issue	Comment Source
How would construction and operation of the mine effect traffic flow (See letter 375 - MDT for details)?	29,82,176,218,286,375,382, M2,M3,M4,M5
How would safety along Highway 200 and 279 be impacted, and what safety features would need upgrading (see letter #374 from L&C County for details)?	60,72,82,198,286,324,372, 374,375,382,M2,M3,M4,M5
How would the mine impact the number of wildlife mortalities on the highway?	72,374,375,M1p42,M2,M3,M 4,M5
What are the potential impacts associated with materials, reagent, and explosives transportation on Highways 200 and 279?	125,152,196,198,215,274, 333,355,372,382,M1p57,M2, M3,M4,M5
How would the mine respond to chemical spills along transportation routes?	125,152,196,274,324,333, 355,382,M2,M3,M4,M5
How would the mine impact traffic flow and safety on Hogum Creek Road?	152,M2,M3,M4,M5
What impact would the mine have on Lewis and Clark County's ability to respond to accidents along Highway 279 from Helena to Hyw 200 and other county roads in the affected area?	192,196,324,M2,M3,M4,M5
How would the mine impact traffic counts and safety on (Copper Creek Road?) between the Highway and McDonald Meadows?	201,374,M1p52,M2,M3,M4, M5
How would the mine impact traffic flow and numbers?	218,286,M2,M3,M4,M5
How would the mine impact design standards on roads (see letter #374 from L&C County for details)?	374,M2,M3,M4,M5

What are the alternative routes identified by the mine for use in the event of primary route blockage, and what impact would increased traffic have on these routes (see letter #374 from L&C County for details)?	374,M2,M3,M4,M5
What impact would blasting have on the relocated Hwy 200 (See letter 375 - MDT for details)?	375,M2,M3,M4,M5
How would mine access impact safety features on Hwy 200 such as acceleration and deceleration needs, left-turn storage, sight visibility, intersections, etc. (See letter 375 - MDT for details)?	375,M1p49,M2,M3,M4,M5
What impact would a hazardous waste site in the new highway right-of-way have on MDT, local residents and the travelling public (See letter 375 - MDT for details)?	375,M1p56,M2,M3,M4,M5
What are the liabilities associated with the landfill (See letter 375 - MDT for details)?	375,M2,M3,M4,M5
What safety-related impacts would realignment have on driver expectancy and the potential for high snow and ice in the area (See letter 375 - MDT for details)?	375,382,M1p57,M2,M3,M4, M5
What impact would the mine and its associated traffic have on accident rates on Hwy 279 near Canyon Creek?	M1p49,M2,M3,M4,M5
What impact would the mine have on traffic flow and safety at the intersection of Hwys 200 and 279?	M1p50,M2,M3,M4,M5
What impact would the mine have on safety related to the speed limit in Lincoln?	M1p50,M2,M3,M4,M5
What would be the impact of increased developments and related intersections on safety and traffic flow?	M1p57,M2,M3,M4,M5

IMPACT OF HIGHWAY RELOCATION

Issue	Comment Source
How would relocation of the highway impact the Blackfoot River, Hogum Creek, and residents in the immediate area?	29,132,210,269,M2,M3,M4, M5
What would be the impact on Highway 200 maintenance (See letter 375 - MDT for details)?	56,375,M2,M3,M4,M5
Would 4(f) be required? A separate evaluation of impacts to the campground, the development of avoidance alternatives, and the identification of mitigating measures would be required.	338,M2,M3,M4,M5
What impact would the new highway design have on safety levels along the relocated segment?	382,M2,M3,M4,M5
What impact would the infiltration galleries have on the relocated highway (i.e. groundwater mounding, flooding, erosion, etc.)?	382

HAZARDOUS MATERIALS

HAZARDOUS MATERIALS

Issue	Comment Source
What types of hazardous waste would be generated and how would it be disposed?	377(p23)
Are the Bevill rulings applicable to any activities or processes at the mine?	377(p23)
What is the potential impact from hazardous materials such as lead-contaminated cupels used for fire assays?	277,324,376,M2,M3,M4,M5
What would be the impact of mine wastes from the vehicle repair and maintenance shop?	277,M2,M3,M4,M5
What chemicals would be used on site and what would be the chances and impact of a spill on site or during transport? Include likely locations for spills or leaks , type, quantity, and characteristics of chemicals, and areas of special concern such as stream crossings, etc	377(P24),382,
Since the State is both the permitting entity and a major land owner in the project, what is the State's liability under CERCLA, CECRA.	324,M1p56,M2,M3,M4,M5
Hazardous waste audit on the new highway right-of-way.	M1p56,M2,M3,M4,M5

EMERGENCY RESPONSE

EMERGENCY RESPONSE

Issue	Comment Source
What provisions have been made for the transport and storage of hazardous materials?	196,274,324,333,M2,M3,M4, M5
What impact would a mine emergency have on the Lincoln Volunteer Fire Department? Specificially, would the mine conduct the initial attack on fires or hazmat spills or would mutual aid agreements be requested from rural fire departments for fire protection and emergency services?	196,333,374,M2,M3,M4,M5
How would hazardous materials spills be responded to?	333,362,M2,M3,M4,M5

PROPERTY RIGHTS

IMPACT OF MINE DEVELOPMENT ON LOCAL PROPERTY RIGHTS

Issue	Comment Source
What impact does this proposal have on the property rights of local and downstream landowners?	15,118,362,M2,M3,M4,M5

How would the mine impact the rights of cabin/home owners on state lease land within and near the mine property?	156,M2,M3,M4,M5
How would the mine impact the rights of land owners whose property the operation or the relocated highway, is located on, but for which no lease or right-of-way agreement has been negotiated?	373,375,M2,M3,M4,M5

WATER RIGHTS

IMPACT OF THE MINE ON UPSTREAM AND DOWNSTREAM WATER RIGHTS

Issue	Comment Source
How would the mine affect current water right holders upstream and downstream from the project?	95,324,325,330,358, M1p14,M2,M3,M4,M5
How would contamination of the surface and ground water affect downstream water rights?	95,M2,M3,M4,M5
How would impacts to stream flows affect downstream water rights?	129,358,M2,M3,M4,M5
How would downstream hydropower water rights be effected?	M4p5,

HEALTH AND SAFETY

IMPACT OF MINE ON LOCAL HEALTH AND SAFETY

Issue	Comment Source
What impact would increased traffic levels have on pedestrian safety in Lincoln and along Highway 200?	60,176,187,324,374,M2,M3, M4,M5
What would be the short- and long-term impacts to human health from the cyanide? Both for employees and citizens in the area?	116,191,258,260,271,M2,M3, M4,M5
How would the mine and any leakage impact cancer rates?	126,M2,M3,M4,M5
How would the electromagnetic radiation from the relocated powerline impact health of residents in close proximity to the line?	132,152,M2,M3,M4,M5
If groundwater is impacted, how would this affect the health of downstream residents using the groundwater as their sole source for drinking water.	137,187,258,325,M2,M3,M4, M5
How would explosives be stored to ensure public safety and what are the mine's security measures?	152,M2,M3,M4,M5
What would the impact of the mine and any air quality degradation on the respiratory health of local residents?	152,271,M2,M3,M4,M5

How would heavy metals and chlorine in drinking water impact human health in the Blackfoot Valley?	326,M2,M3,M4,M5
What impact would arsenic in drinking water have on public health?	330,M2,M3,M4,M5
What would be the psychological impact of a leak into the Blackfoot?	359,M2,M3,M4,M5
How would the safety of post-mine recreational users be affected?	M1p24,M2,M3,M4,M5
What impact would traffic from the mine and secondary businesses have on the safety of children before and after school?	M1p50,M2,M3,M4,M5
How would asthma sufferers be impacted by the mine?	M3p2,

ENVIRONMENTAL POLICY AND PLANNING

MISCELLANEOUS POLICY/PLANNING CONCERNS AND IMPACTS

Issue	Comment Source
How can the public be ensured that new owners would have the financial resources and desire to protect the environment?	27,M2,M3,M4,M5
How would the public be compensated for particular losses (i.e. groundwater contamination, quality of life, etc.)?	27,M2,M3,M4,M5
How is the process impacted if the company sells prior to construction?	63,M2,M3,M4,M5
What would be the policy to deal with leaks in the heap leach liner and pad?	85,M2,M3,M4,M5
Who decides when a leak is significant enough to warrant shutdown?	85,M2,M3,M4,M5
How can the public be ensured that this mine would receive the appropriate monitoring and enforcement procedures during mining and after reclamation (i.e. regular inspections, etc.)	106,128,140,164,168, M1p32,M2,M3,M4,M5
How are bonds calculated and who is responsible if they are not sufficient in the long run? Would it be calculated on the expected case?	128,141,166,326,333,342, 348,376,M1p34,M2,M3,M4, M5
What are the contingencies for environmental protection in the event of lower gold prices forcing a shut-down at the mine?	184,M2,M3,M4,M5
EIS should consider a review of other existing mines of similar size and technology and in similar environmental surroundings. Specifically reclamation success.	231,367,M2,M3,M4,M5
Can the company's track record be considered in this EIS?	274,352,M2,M3,M4,M5
EIS must be substantive not procedural.	311,M2,M3,M4,M5
Final EIS decision should be up to the Land Board since most of the mine is on School Trust land. Director of DEQ should only make recommendation to the Board.	314,M2,M3,M4,M5

Bond should be pegged to inflation for the life of the mine and the years of reclamation.	314,M1p34,M2,M3,M4,M5
Provide a clear description of the model assumptions, parameters, and limitations, including data and information used to justify the choice of parameters.	324,M2,M3,M4,M5
EIS must address the constitutional right of Montanans to a clean and healthful environment.	330,M2,M3,M4,M5
How does this mine adhere to the environmental integrity of the Montana State Constitution? Discuss pit reclamation in relation to the Constitution.	351,M2,M3p1,M4,M5
EIS must consider the impact mitigation measures such as facility impact bonds, tax prepayments, grants, and other impact assistance through the Hard Rock Mining Impact Plan (see letter #374 from L&C County for details).	374,M2,M3,M4,M5
What measures would agencies involved use to monitor assurance of unbiased/non-political alternatives?	351,M2,M3,M4,M5
How would interagency coordination impact assessment of reclamation objectives?	M1p36,M2,M3,M4,M5
What would be the impact of interagency relations on cumulative impacts?	M1p39,M2,M3,M4,M5
Can the permit be non-transferable until after the mine is in operation? If not, what would be the impact?	M2p6,M2,M3,M4,M5
EIS should discuss the difference between aquatic standard and drinking water standard and the differences in analytical methods.	M3p3,
EIS should address the fees or royalties paid by the company for the minerals.	M3p3,
Purpose and need: how would this project effect the world supply of gold?	M3p3,
Use future dollars (interest and inflation) when calculating cost/benefits.	M3p3,
Does a lake constitute reclamation under the Constitution? Cite court cases and law changes since Constitution.	M3p9,
EIS should address Montana ground water discharge permit issues for the infiltration of excess water into alluvium (EPA).	377(7),
Ground water treatment prior to discharge as a condition of the permit should be addressed (EPA).	377(7),
EIS should analyze the mine's ability to comply with future NPDES/MPDES requirements during all seasons (EPA).	377(11&12)
EIS should analyze the effectiveness of proposed BMP's (i.e. discharged with BMPs) compared to conditions prior to construction (EPA).	377(11)
Adequate funding is necessary for post-closure contingencies related to unplanned releases after facility decommissioning and completion of surface reclamation activities.	377(p20),
Discuss possibility of COE requiring a bond.	377(p21),
What impact would transfer of a permit have on the environment?	M2p6,M2,M3,M4,M5

GEOTECHNICAL ENGINEERING

IMPACT OF CATASTROPHIC EVENTS ON MINE STABILITY

Issue	Comment Source
How would a major earthquake or other catastrophic event effect the stability of the mine and its facilities (pumps, liners, pipes, power supply, etc.)?	3, 74,116,117,135,164,166, 197,229,230,274,297,317, 333,381,M1p9&30&35,M2, M3,M4,M5
What impact does stress on the liner have on leakage (see alternative re: soil lifts)?	60,333,377(p23),M2,M3, M4,M5
How does the reclassified seismic rating impact the potential for a leak resulting from earthquake?	74,166,230,297,M2,M3,M4, M5
What impact would a catastrophic flood event have on the stability of the mine (i.e. 1000-year flood)?	117,164,229,274,291,333, 362,M1p9,M1p14,M2,M3,M 4,M5
What is the seismic risk in the area?	230,297,377(p23),M2,M3, M4,M5
What would be the cost of a catastrophic failure at the mine?	274,333,M2,M3,M4,M5
What is the probability of a seismic event and subsequent failure or leak?	M1p30,M2,M3,M4,M5
What impact would liquefaction have on the pad and ponds?	M3p2,

IMPACT OF GEOTECHNICAL FAILURES

Issue	Comment Source
What impact would geotechnical failures have on the environment (i.e. rock seams opening, concrete cracking, liner leaks, etc.)? **This person suggested one successful mine near Elko, NV.	57,109,144,148,166,210, 263,274,275,297,314,316, 324, 326,343,348,365,376,M2,M3, M4,M5
What is the short- and long-term risk of failure for the leach pads, ponds, and rock piles? And what contingencies are planned for such failures? (Specifically requested that the rationale for the determination be included in EIS)	70,106,109,118,140,144, 148,154a,166,263,275,323, 324,334,343,348,353,362, 365,376,377(p8),M1p26& 27,M2,M3,M4,M5
How would leaks in the heap leach pad and/or liner be repaired with several hundred feet of rock loaded.	85,125,M1p30,M2,M3,M4,M 5
How would significant leaks be determined and what would those rates be?	85,109,M1p17&18&30,M2,M 3,M4,M5
How would the company ensure against long-term contamination from the leach pad, pit, rock piles, etc.?	95,106,118,129,140,144, 148,154a,164,221,333,M2,M 3,M4,M5
What is the short- and long-term potential for geological instability of the soils on site and the potential risk for slumping and landslides?	114,117,154a,166,210,263, 297,328,M1p27,M2,M3,M4, M5
What contingencies are in place in the event of a failure in the lining or "plumbing" systems?	324,333,M1p11,M2,M3,M4, M5
What would be the impact to the operation if, because of rock deterioration, too many fines are produced and the leach solutions don't percolated through the heap? Would this necessitate agglomeration of the ore and result in the distinct possibility that the ore would not leach at all?	326,348,M1p31,M2,M3,M4, M5
How would rock competency changes be accounted for in the impact analysis?	326,M2,M3,M4,M5
What impact does seasonal variations have on liner installation and integrity?	M1p27,M2,M3,M4,M5
What is the timeframe for contamination in the event of leakage from any of the facilities?	M2p12,M2,M3,M4,M5
What impact would the weight of the water and ore have on geotechnical stability?	377(p23),M2p15,M2,M3, M4,M5
What would be the impact of repairing a leaking liner in the leach pad or ponds?	M3p2,
Is HDPE the best liner since in other industries it has a history of failing ("70% of hip replacement failures were because of HDPE")?	M5p14,
What is the contingency for pumping back contaminated water from a leaking facility (EPA)?	377(8),
What impact would failure of the drainage system (upper TVs) have on pit wall stability?	M1p35,M2,M3,M4,M5

IMPACT OF BLASTING ON SURROUNDING AREA

Issue	Comment Source
What impact would mine blasting and associated shockwaves have on local structures?	132,M2,M3,M4,M5
What impact would mine blasting have on water wells within a three mile radius?	152,M2,M3,M4,M5

MINE AND PROCESS ENGINEERING

PROCESS IMPACTS

Issue	Comment Source
How would process controls be used to minimize leakage?	134,M2,M3,M4,M5
What impact would the proposed water management system have on the potential for leaks or overflows?	141,348,M2,M3,M4,M5
Would the ore be blended to achieve an economic grade, and if so, how would this impact cost of mining and leachability?	326,M1p34,M2,M3,M4,M5
Would water treatment in perpetuity be required if clay caps and liners were to leak?	M1p35,M2,M3,M4,M5
Would metals other than arsenic and antimony (i.e. zinc, mercury, manganese) be removed in the dewatering treatment plant, if used?	377(13)
What are the design standards for disposing of surplus water at the land application site, i.e. How much water, cyanide, arsenic and other metals can the site effectively treat (EPA)?	377(13)

RISK ASSESSMENT

RISK ASSESSMENT

Issue	Comment Source
The short- and long-term risk to the environment and society of contamination caused by catastrophic failure must be assessed.	117,271,M1p35,M2,M3,M4, M5
What is the risk of contamination to ground and surface water from the mine?	129,260,271,323, 377(p8),M2,M3,M4,M5
What are the chances of emergency water discharge?	326,M2,M3,M4,M5
Would past records and similar mines with similar operating and reclamation requirements be examined when conducting a risk assessment?	326,M4p1,M2,M3,M5

MONITORING AND ENFORCEMENT

IMPACT OF MONITORING AND ENFORCEMENT PROGRAMS

Issue	Comment Source
Would ARD generation be monitored and is a contingency plan in place?	57,M2,M3,M4,M5
Would environmental conditions be monitored on a weekly basis?	71,128,M2,M3,M4,M5
How would long and short term monitoring and enforcement be ensured?	74,117,140,274,311,367, M1p8,M2,M3,M4,M5
Who would be in control of monitoring the leach pad and liner and would they be liable for damages in the event of failed compliance with standards and policy?	85,117,128,274,M2,M3,M4, M5
How does DEQ's inability to monitor and inspect regularly increase the risk of damage to the environment through contamination?	117,140,M2,M3,M4,M5
How would treatment plant effluent be monitored for phosphorus and nitrates to ensure compliance with nondegradation regulations, especially at the downgradient edge of the mixing zone?	277,M2,M3,M4,M5
How would infiltration rates in the Blackfoot alluvium/glaciolacustrine deposits be monitored to prevent mounding?	277,M2,M3,M4,M5
Would the reclamation plan meet its objective? And is the monitoring plan adequate to verify that?	M1p32,M2,M3,M4,M5
Would the ground water monitoring program be adequate to detect impacts from mining, including impacts to springs within the project area (EPA)?	377(10)
Are well numbers and locations adequate enough to monitor the affects of the water management plans on alluvial ground water and the Blackfoot and Landers Fork surface flows (EPA)?	377(10)
Would a ground water monitoring program be developed for the purpose of monitoring specific mine features such as impoundments, waste rock piles, land application sites, etc. (EPA)?	377(10)
Would an air quality monitoring program be implemented to ensure project compliance?	377(p15),

QUALITY-BASED ATTRIBUTES

(i.e. quality of life, sense of place, spiritual bonds)

IMPACT OF THE MINE ON QUALITY BASED ATTRIBUTES

Issue	Comment Source
What short- and long-term impacts would the mine have on the quality of life of residents in the immediate area and down stream, including Lincoln and Ovando (this includes positive and negative impacts)?	6,18,25,32,48,58,72,82,88,91 ,109,128,130,136,140, 145,153,156,157,181,198, 202,210,218,227,254,261, 292,314,322,326,330,331, 353,355,358,360,372,M2,M3, M4,M5
What short- and long-term impacts would the mine have on the quality of life enjoyed by visitors to the area?	10A,58,M2,M3,M4,M5
How would 24 hour operations affect local residents (i.e. phychologically, socially, etc.)	29,72,273,359,M2,M3,M4,M 5
How would the traditional rural lifestyle be impacted in the short and long terms?	60,128,181,191,210,220, 227,301,325,M2,M3,M4,M5
How would peoples' "quality experience" be impacted by the mine?	70,M2,M3,M4,M5
How would the mine impact the sense of home or sense of place that is felt so strongly by residents and visitors to the area?	82,140,157,323,330,M2,M3, M4,M5
How would quality and way of life be impacted without the mine locally, state, and federally?	161,M2,M3,M4,M5
How would the mine effect the trees, wildlife, fish, and water for their own intrinsic values?	176,273,314,M2,M3,M4,M5
How would the mine effect the standard of living in the Lincoln area and in surrounding communities?	188,331,M2,M3,M4,M5
What would be the impact to the existing character of the Blackfoot River and Valley?	191,210,229,325,M2,M3,M4, M5
What impact would the mine have on aesthetic/intrinsic values of the Blackfoot River and surrounding area?	232,264,273,352,M2,M3,M4, M5
How would the mine impact the Blackfoot in terms of deep human need of spirit?	273,M2,M3,M4,M5
How would the mine impact the spiritual attributes of the area?	273,352,M2,M3,M4,M5
How would the spirituality of the Blackfoot be impacted?	M2p5,M2,M3,M4,M5

ALTERNATIVES

ALTERNATIVES IDENTIFIED FOR CONSIDERATION

Issue	Comment Source
Can the pit be backfilled?	10A, 11,39,101,108,135, 146,198,209,214,274,286, 298,324,335,377(p15),382, M2, M3,M4,M5
Partially backfill the pit.	377(p16),
Limit the hours of operation to minimize evening and critical time impacts (i.e. School opening and dismissal, etc.).	29,M1p50,M2,M3,M4,M5
Develop a trust fund for the town of Lincoln.	39,M2,M3,M4,M5
Move ore (leach pads) and process facilities to another part of the valley (four corners area, for example).	49,60,221,324,334,M2,M3,M 4,382,M5
Buy out all landowners at fair market value with plenty of time to find equally rewarding area to live.	50,M2,M3,M4,M5
Require backfilling if pit water is monitored and determined to be affected negatively by ARD.	57,M2,M3,M4,M5
Process ore without the use of cyanide.	60,334,382,M2,M3,M4,M5
Require soil compaction in no more than 6" lifts underneath the liner to help lessen stress on liner.	63,M2,M3,M4,M5
Develop a mitigation trust fund to be used to finance environmental restoration projects throughout the Blackfoot headwaters and valley (see letter #94 for details).	94,M2,M3,M4,M5
The EIS should consider the 1000-year flood.	117,M2,M3,M4,M5
Use vat leaching technology rather than heap leaching.	125,382,M2,M3,M4,M5
Use third-party, independent scientists should be used to review the design, monitor and inspect for acid mine drainage, surface and ground water issues, and biological impacts.	132,168,221,274,311,352, 377(p30),M2,M3,M4,M5
Require 100% reclamation, including backfilling pit and recontouring.	140,294,300,382,M2,M3,M4, M5
Relocate leach pads further from the Blackfoot.	198,382,M2,M3,M4,M5
Segregate dumps by sulfide content with the sulfide bearing material being placed on clay liners with catchment basins and water treatment provisions.	221,334,377(p15),M2,M3, M4,M5
Consider buffering the lake pH to reduce sulfide leaching.	221,M2,M3,M4,M5
Calculate bond on a worst-case scenario.	230,M2,M3,M4,M5
Wait for a more appropriate, technically safe extraction method in the future.	266,M2,M3,M4,M5
Research if impacts to alluvial flows and surface water would be reduced if infiltration was routed over a larger area?	277,M2,M3,M4,M5

Every surface water monitoring point should constitute a point of compliance. Surface water compliance and monitoring points should be located down gradient from heap leach pads, ponds, rock piles, infiltration points, treatment plant effluent, and at the downgradient edges of any and all mixing zones.	277,M2,M3,M4,M5
All ground and surface water monitoring and compliance points should be monitored on a monthly basis.	277,M2,M3,M4,M5
Set forth in the conditions of the permit a limit of violations allowed, past which the permit is revoked.	311,M2,M3,M4,M5
Establish a trust fund made up of 80% of the gold recovered by the mining company to insure reclamation.	314,M2,M3,M4,M5
Consider treatment of runoff, seepage, effluent, etc. from rock piles	324,M2,M3,M4,M5
Purchase land similar to the habitat lost for grizzly, black bear, elk and deer, elsewhere in the state to make up for impacted habitat at the site.	326,,M2,M3,M4,M5
Consider three feet of clay underneath the synthetic liner.	334,382,M2,M3,M4,M5
Include clay liner under double liner in ponds.	334,M2,M3,M4,M5
Place solution collection ponds in the leach pad.	334,377(p15),M2,M3,M4,M5
Consider community monitoring of water quality and leaks.	334,M2,M3,M4,M5
No Action	371,M2,M3,M4,M5
Develop a smaller scale project until environmental performance can be proven.	334,M2,M3,M4,M5
Consider batch neutralization with complete mixing of ponds and not discharge until at least two tests of pond surface and bottom water have been completed and show no CN remains.	348,M2,M3,M4,M5
Place leach material and rock back into pit upon closure.	230,M2,M3,M4,M5
Have independent Geotechnical consultant review the design and the installation of the liner and leak detection collection system.	M1p10,M2,M3,M4,M5
Determine through an LA abrasion test how much rock would turn to clay in order to know if the ore is feasible to leach as predicted (without agglomeration).	M1p31,M2,M3,M4,M5
Implement a staged plan to reduce visual affects as soon as possible.	M1p55,M2,M3,M4,M5
Divert status of land grant tracts to divert royalties to other trust beneficiaries.	M2p3,M2,M3,M4,M5
Consider alternatives to petroleum based hydrocarbons in daily operations.	377(p23),M2p14,M2,M3, M4,M5
Reduce the scale of the project, but extend the project life.	M5p3,
Implement the COE's practical alternatives test.	M5p13,
Use a triple liner design for the leach pad -- similar to the one used at the Cresson Project at Cripple Creek, Colorado. Includes three impervious layers, two synthetic geomembranes and one clay/soil liner compacted to 10^{-6} cm/sec permeability.	377(p15),M2p11,M2,M3,M4, M5

Use three layers of 120 mil LDPE with a leak detection system for all pads and ponds.	382
Use bentonite clay and not alluvial materials for the subgrade under leach pads and ponds.	382,M2p11,M2,M3,M4,M5
How do the various alternatives compare -- cost-wise?	377(p15),
Use liners under the rock piles.	377(p15),
Provide rapid response capabilities for emergency and long-term releases during operations.	377(p20),
Require a post-closure trust fund to ensure post closure maintenance and treatment activities should the mine close down prematurely.	377(p21),
Reduce operating schedule to minimize noise and blasting related impacts.	377(p22),
Determine an alternative to nitrate producing blasting agents.	377(p23),
Consider in-situ mining	??
Implement a metals and glass recycling program at the mine.	377(p23),
Use a conventional water treatment plant instead of land application as the way to treat and discharge excess cyanide solutions.	382
Consider an alternative that requires surface and groundwater quality standards be met without a mixing zone.	382

CUMULATIVE IMPACTS

CUMULATIVE IMPACTS OF DEVELOPMENTS AND ACTIVITIES

Issue	Comment Source
What would be the cumulative impact of other SPJV properties (Keep Cool and Seven-up Pete) being developed?	2,17,108,146,209,286,325, 377(p18), 382,M1,M1p15, M2, M3,M4,M5
What would be the cumulative impact of all other mining projects, including historic mining, in the Blackfoot drainage?	10A,11,35,72,95,101,108, 125,135,141,145,146,254, 286,307,309,330,377(p18), 382,M2,M3,M4,M5
What would be the cumulative impact on elk calving areas if the other SPJV properties (Keep Cool and Seven-up Pete) are developed?	17,M2,M3,M4,M5
What would be the cumulative effects of the mine and timber harvests, Bouma Post Yard, landfill area, prescribed burns, road salting, highway maintenance, superfund activities on upper Blackfoot, mine explorations, rural subdivisions, Lincoln sewer system, treatment plants, firewood gathering, horseback, motorcycle and snowmobile riding, etc.? (Effects might include: air and water degradation, wetlands, wildlife habitat, increased stormwater runoff contributing pollutants to surface water, etc.)	72,282,307,309,377(p19),382 M1p15&16&39&41,M2,M3, M4,M5
Cumulative impacts to air quality from wood burning stoves, slash burning, increased automobile activity, fugitive dust, and emissions..especially during inversions.	72,152,282,324,M1p44,M2, M3,M4,M5

Cumulative impacts to water quality from leaks and runoff.	72,M2,M3,M4,M5
What would be the cumulative impacts to fish from cumulative activities including increased road maintenance (sand,de-icing) and other activities in the Landers Fork, Copper Creek Blackfoot, and Poorman Creek drainages?	85,282,M2,M3,M4,M5
Would cumulative impacts of direct habitat loss, indirect habitat loss from development, increased legal and illegal takes reduce wildlife numbers and distribution and hunter opportunities in the upper Blackfoot, Dearborn, or Helena Valleys?	86,M2,M3,M4,M5
What would be the cumulative impact of additional septic systems up and down stream from the mine, sanitary wastewater flows, and effluent discharge from the Lincoln wastewaer treatment plant to ground water and hydrologically connected surface waters?	221,282,377(p14),382, M1p15, M2,M3,M4,M5
What would be the cumulative impacts to Milltown Dam at Bonner from arsenic and other heavy metals, and how would they impact current Superfund cleanup efforts and alternatives (cumulative considerations: arsenic existing at the site, arsenic from existing sources on the Blackfoot and ClarkFork rivers, arsenic from the proposed mine, and increased arsenic from the STARS technology on Silver bow Creek Tailings?	262,352,358,376,377(p19), M2,M3, M4,M5
What cumulative impacts would exist from continual blasting and nitrate production?	277,M2,M3,M4,M5
What would be the cumulative impacts on sedimentation from the mine?	324,M2,M3,M4,M5
What would be the cumulative impact to wildlife from the loss of hiding and thermal cover at and near the site?	324,M2,M3,M4,M5
What would be the cumulative effects of MDT's long-range construction plan that includes an overlay and widening of Silver City - Wl, on S-279 from MP 9 to MP 16.6 (See letter 375 - MDT for details)?	375,M2,M3,M4,M5
How would backup from the Milltown dam affect the lower Blackfoot if additional flows are produced by the mine?	M2p16,M2,M3,M4,M5
What would be the cumulative impact to wildlife in the Bob Marshall Wilderness from the mine, increased Wilderness use, etc.?	M4p15,
How will the cumulative effects of the McDonald Gold Project and the recently approved Beaver Dry Timber Sale in Arrastra Creek affect the overall viability of bull trout in the upper Blackfoot?	382

MISCELLANEOUS

MISCELLANEOUS

Issue	Comment Source
What impact would the mine have on the availability of fossil fuels?	184,M2,M3,M4,M5
What would be the impacts on the Blackfoot River and Landers Fork drainage ecosystems as a result of rendering an extremely dynamic hydrogeologic scenario with up to 50 foot seasonal fluctuations in alluvial water tables, shifting losing and gaining stream reaches, seasonal alluvial ground water flow reversals, flow direction fluctuations, and significant gradient changes static via dewatering wells, cutoff wells, and upstream infiltration.	277,M2,M3,M4,M5

Disclosure of income to the State Trust from royalties must be made in the EIS.This disclosure should include proposed accounting methods for tracking payments, auditing methods to be sure the State gets paid full royalties for minerals retrieved from state land and fund distribution based on appropriate grants.	324,M2,M3,M4,M5
Since the State is both the permitting entity and a major land owner in the project, what is the State's liability under CERCLA, CECRA.	324,M1p56,M2,M3,M4,M5
How would the mine impact the biological sustainability of the watersheds in the area?	353,M2,M3,M4,M5
Is it suitable to build a mine of this magnitude in the headwaters of the Blackfoot?	360,M2,M3,M4,M5
What is the ethical impact of gold being produced for luxury items?	M2p5,M2,M3,M4,M5
What are the ethical implications of moving a mountain for gold?	M3p2,
Are the Bevill rulings applicable to any activities or processes at the mine?	377(p23)